

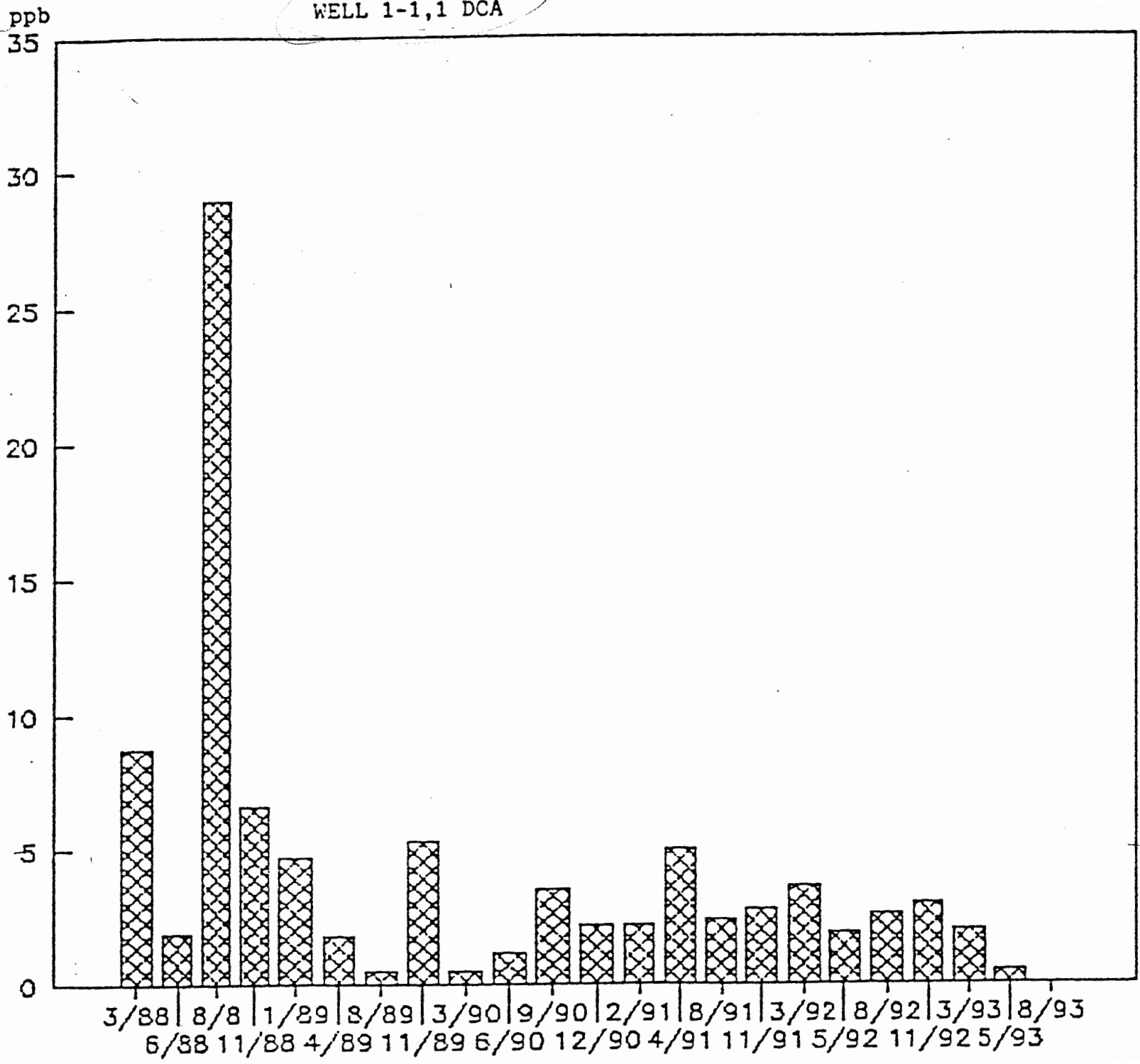
APPENDIX V

HISTOGRAMS OF VOLATILE CONCENTRATIONS IN QUARTERLY MONITORING WELLS

200723

Always Btl

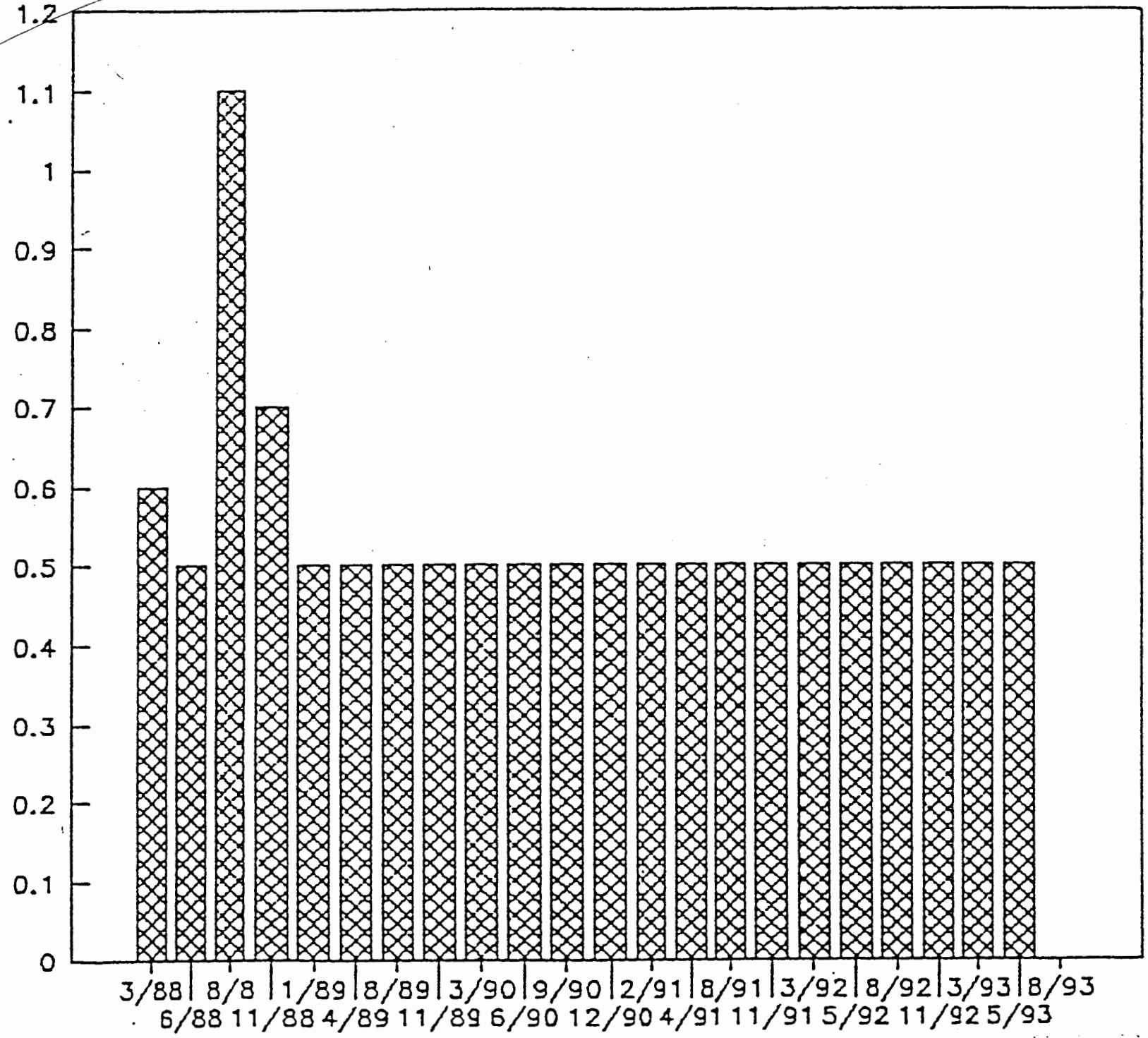
WELL 1-1,1 DCA



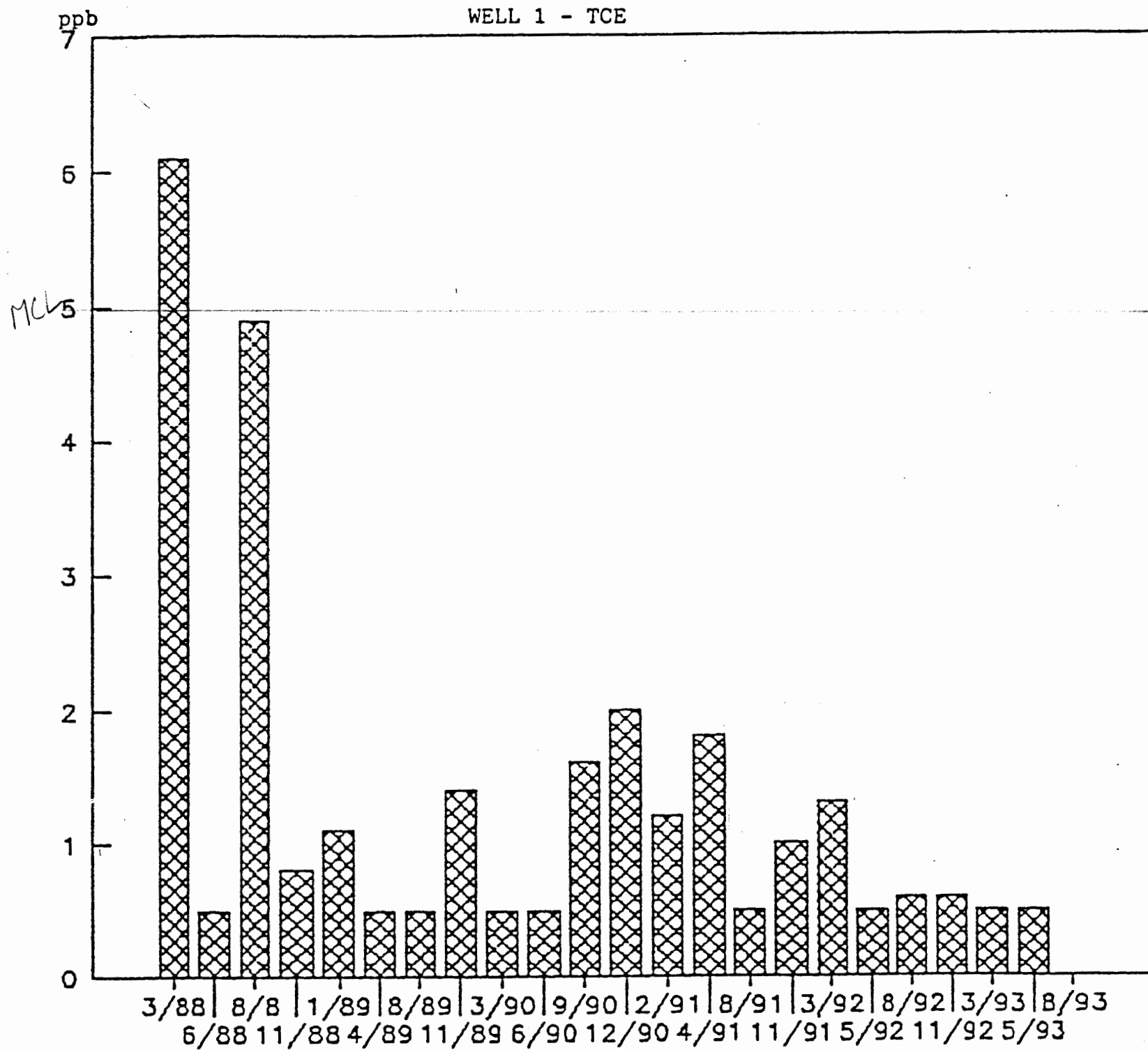
2004-0
(Average
value)

ppb
1.2

WELL 1 - 1,1,1



5.2 ppb



WELL 1 - 1,2 DCE

ppb

3

2.5

2

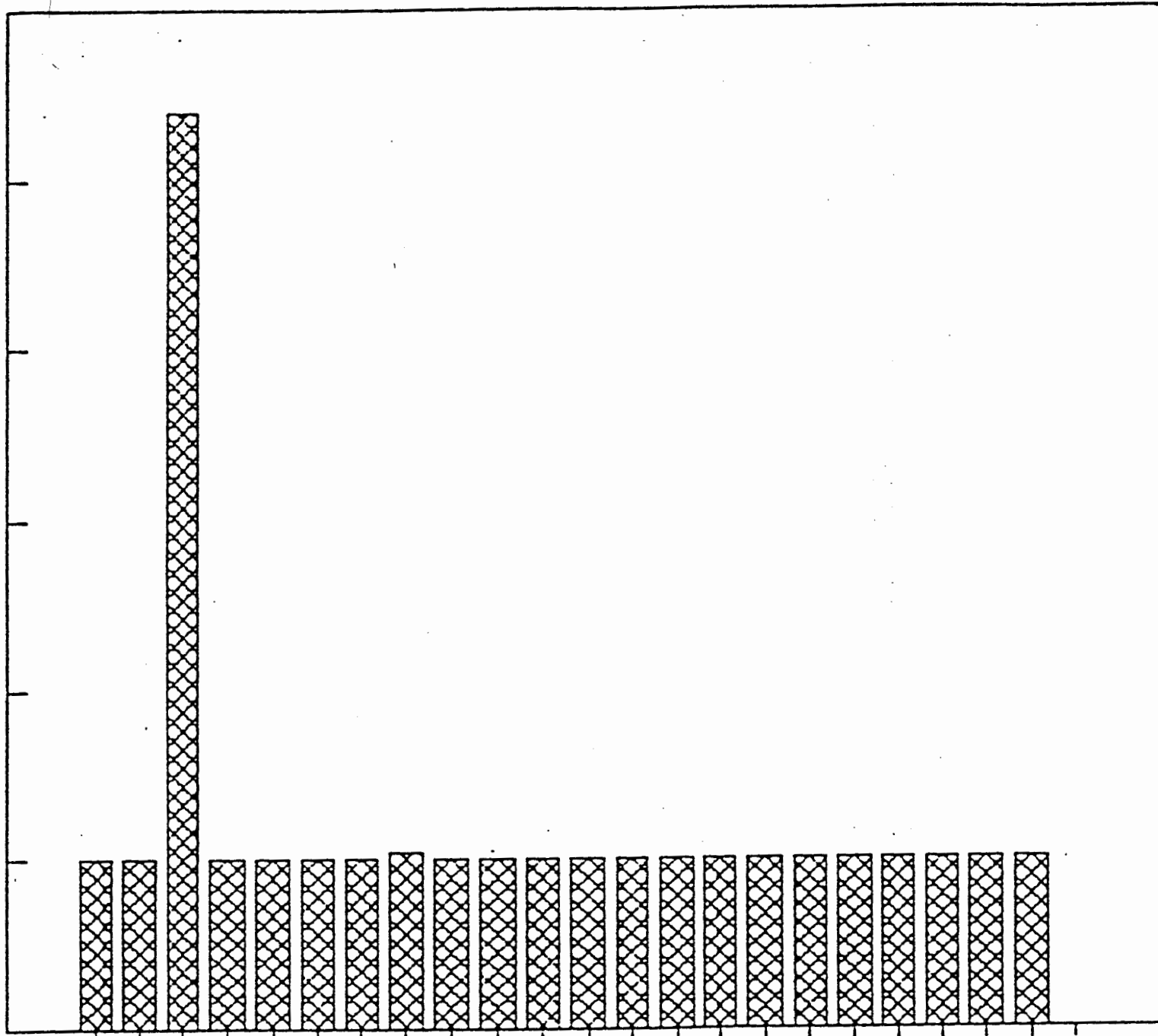
1.5

1

0.5

0

3/88 8/8 1/89 8/89 3/90 9/90 2/91 8/91 3/92 8/92 3/93 8/93
6/88 11/88 4/89 11/89 6/90 12/90 4/91 11/91 5/92 11/92 5/93

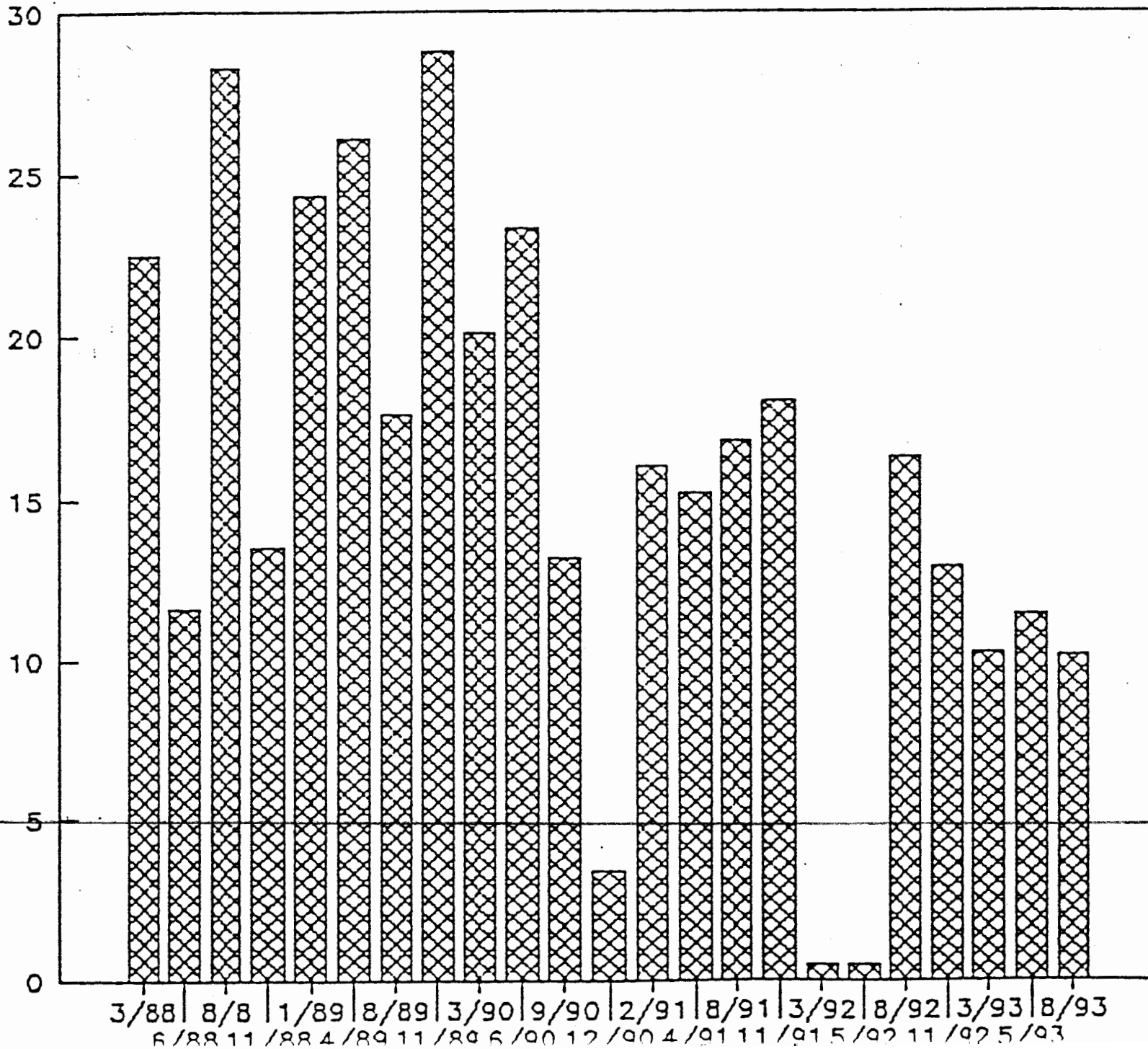


70 ppb
Always below

5.7
172

ppb
30

WELL 3- TCE



WELL3 - 1,2 DCE

ppb
11

10

9

8

7

6

5

4

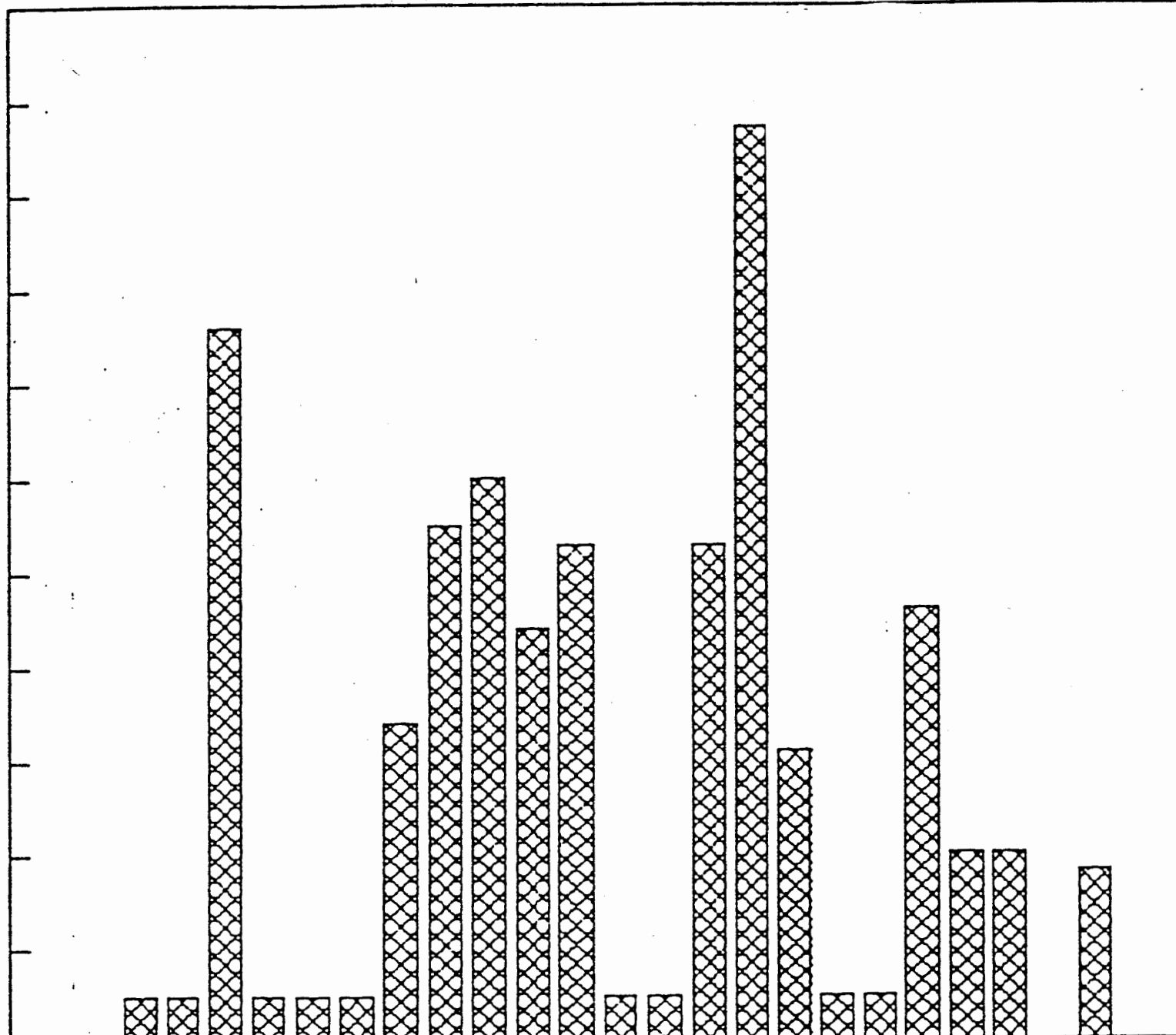
3

2

1

0

3/88 8/8 1/89 8/89 3/90 9/90 2/91 8/91 3/92 8/92 3/93 8/93
6/88 11/88 4/89 11/89 6/90 12/90 4/91 11/91 5/92 11/92 5/93

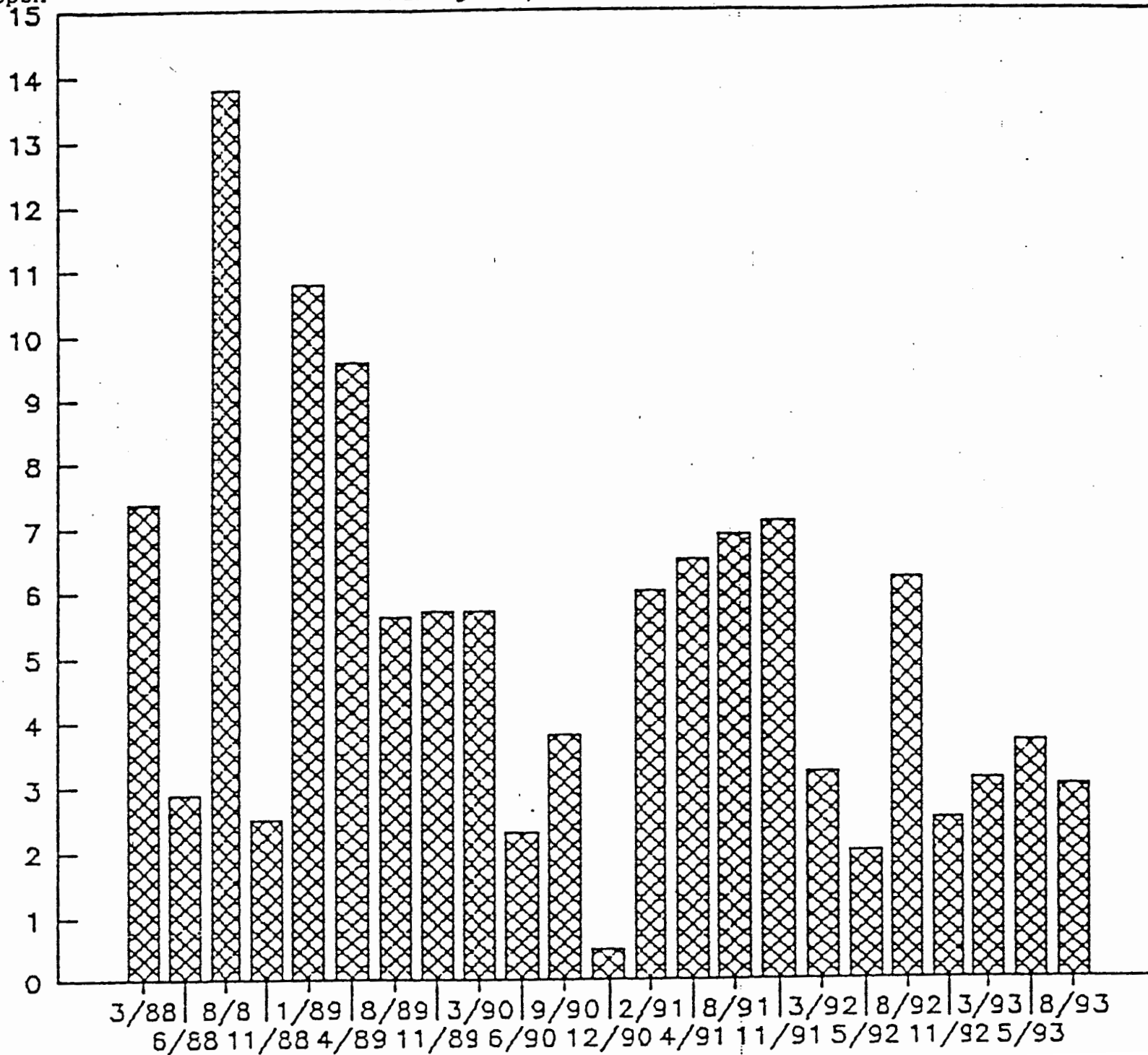


70
DCE
Concentration

810
Always
below

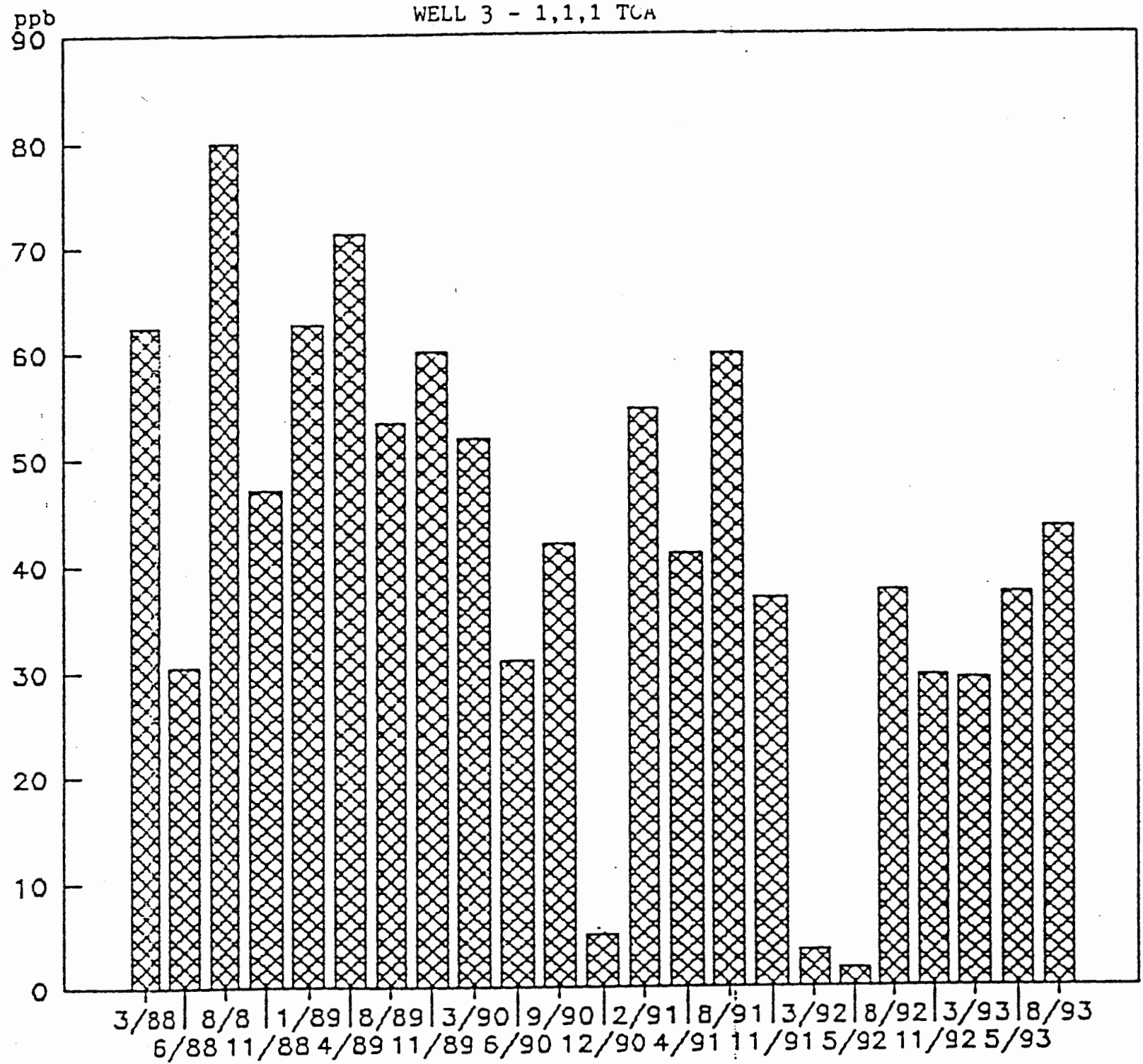
ppbn

WELL 3 - 1,1 DCA



200 ↑
Plum
(1111)

WELL 3 - 1,1,1 TCA



WELL 2 - 1,2 DCE

ppb

16

14

12

10

8

6

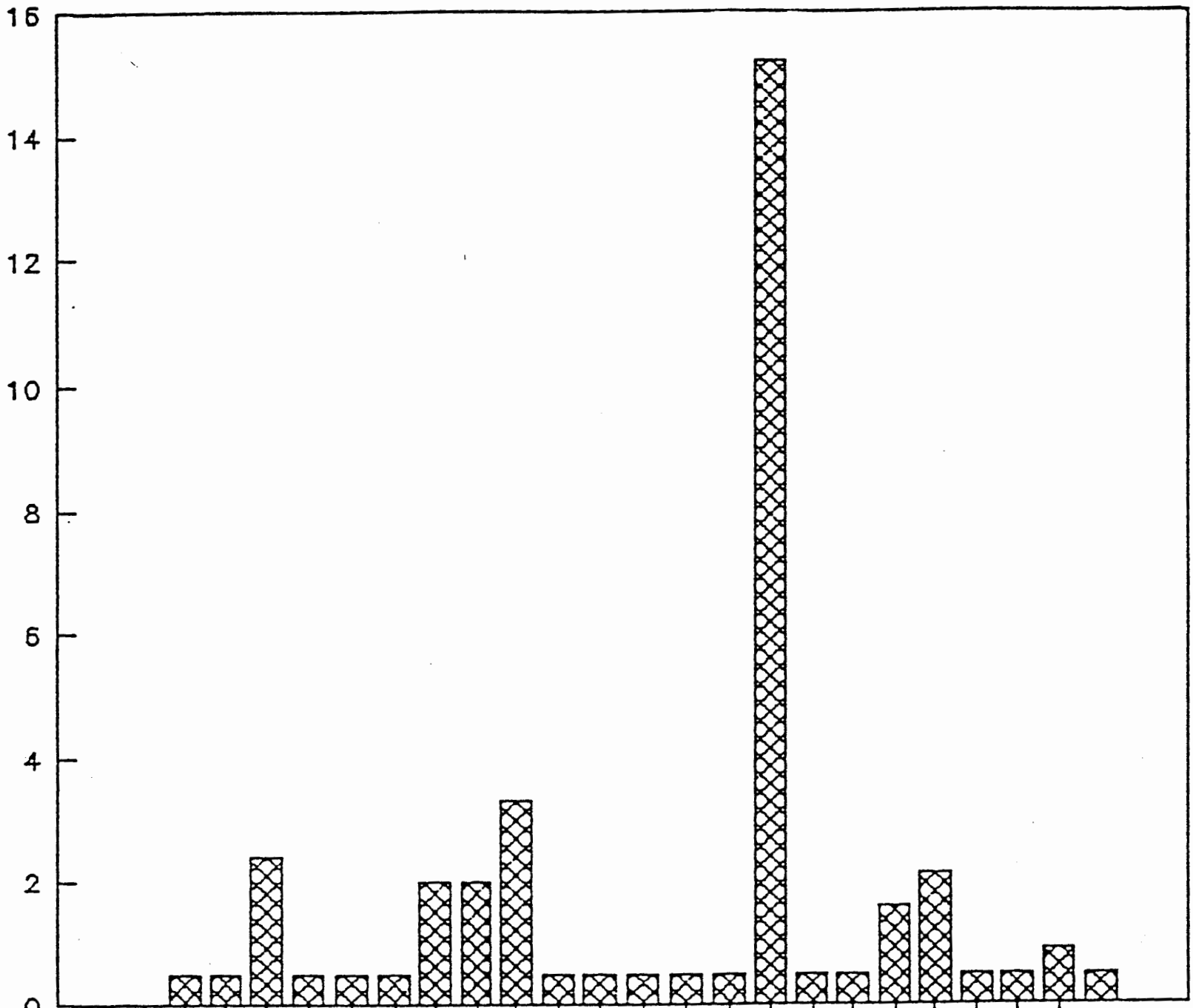
4

2

0

3/88 8/88 1/89 8/89 3/90 9/90 2/91 8/91 3/92 8/92 3/93 8/93
6/88 11/88 4/89 11/89 6/90 12/90 4/91 11/91 5/92 11/92 5/93

70 ↑
Always follow



WELL 2 - TCE

ppb

8

7

6

5

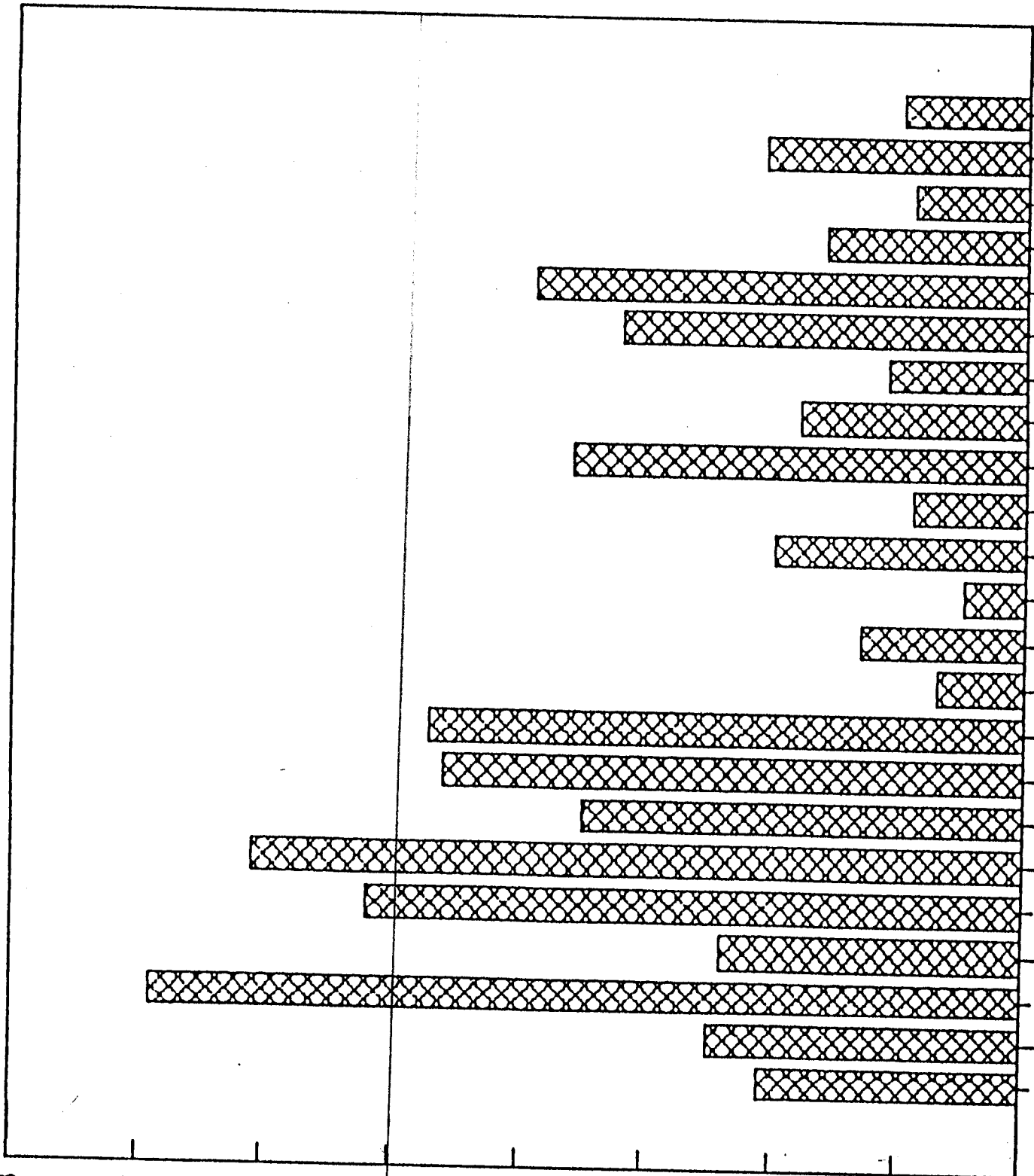
4

3

2

1

0

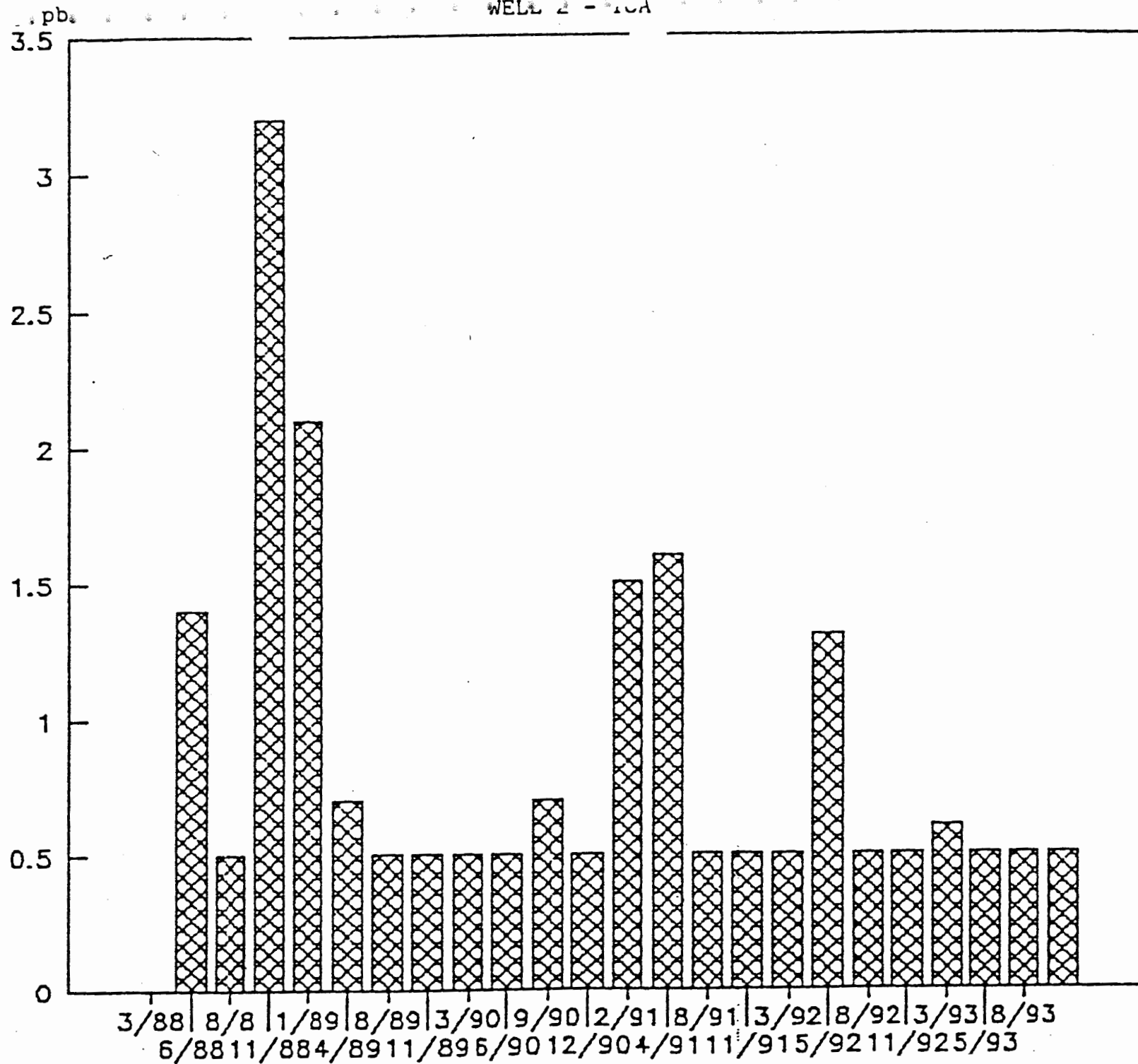


3/88 8/88 11/88 4/89 8/89 11/89 3/90 6/90 9/90 12/90 2/91 4/91 8/91 11/91 5/92 8/92 11/92 3/93 5/93 8/93

6/88 11/88 4/89 8/89 11/89 3/90 6/90 9/90 12/90 2/91 4/91 8/91 11/91 5/92 8/92 11/92 3/93 5/93 8/93

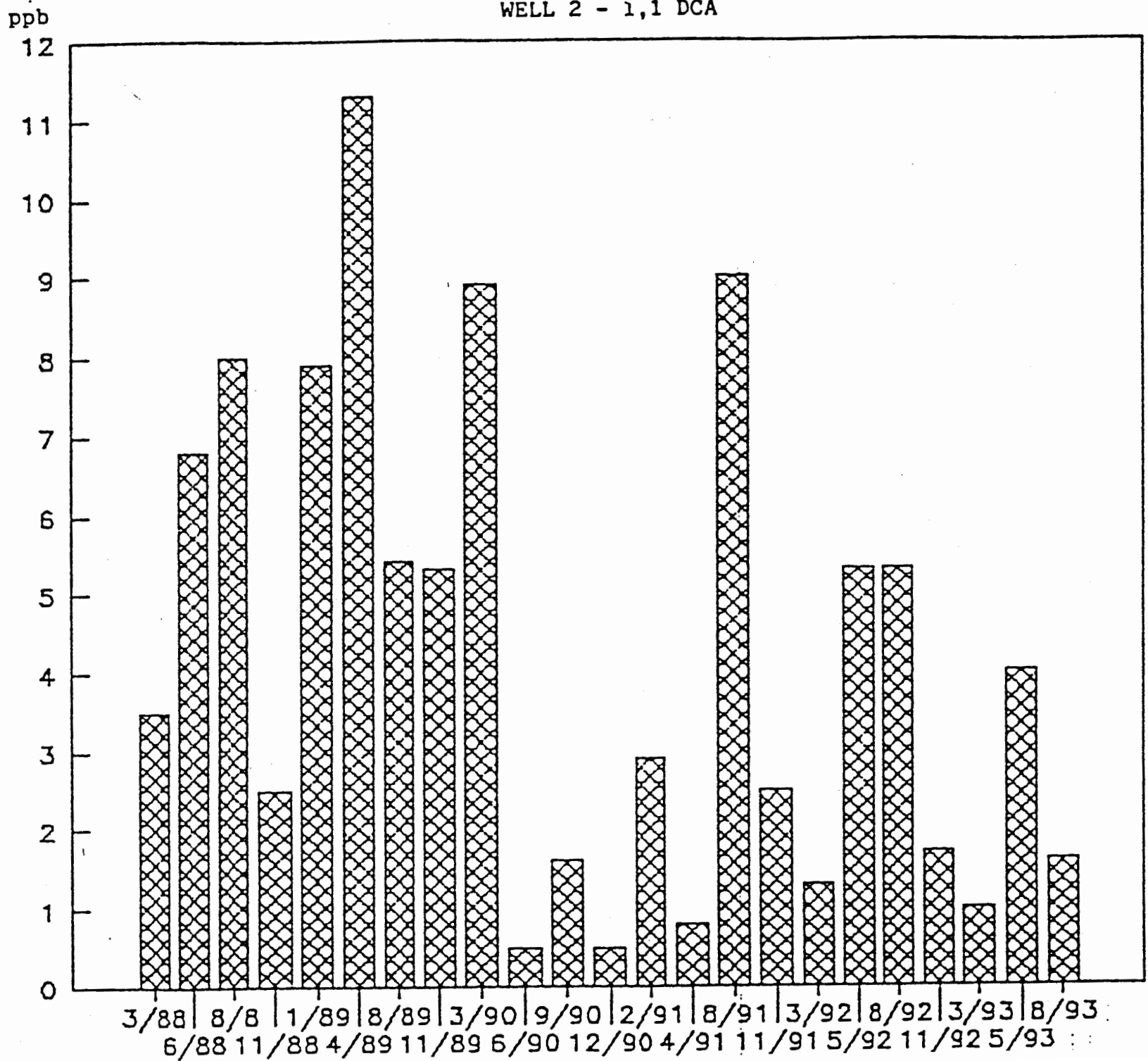
2007
Spring
Summer

WELL 2 - PCA



810
Ally
mex

WELL 2 - 1,1 DCA



Production - 1,1,1 TCA

ppo

22

20

18

16

14

12

10

8

6

4

2

0

3/88

8/88

1/89

8/89

3/90

9/90

2/91

8/91

3/92

8/92

3/93

8/93

6/88

11/88

4/89

11/89

6/90

12/90

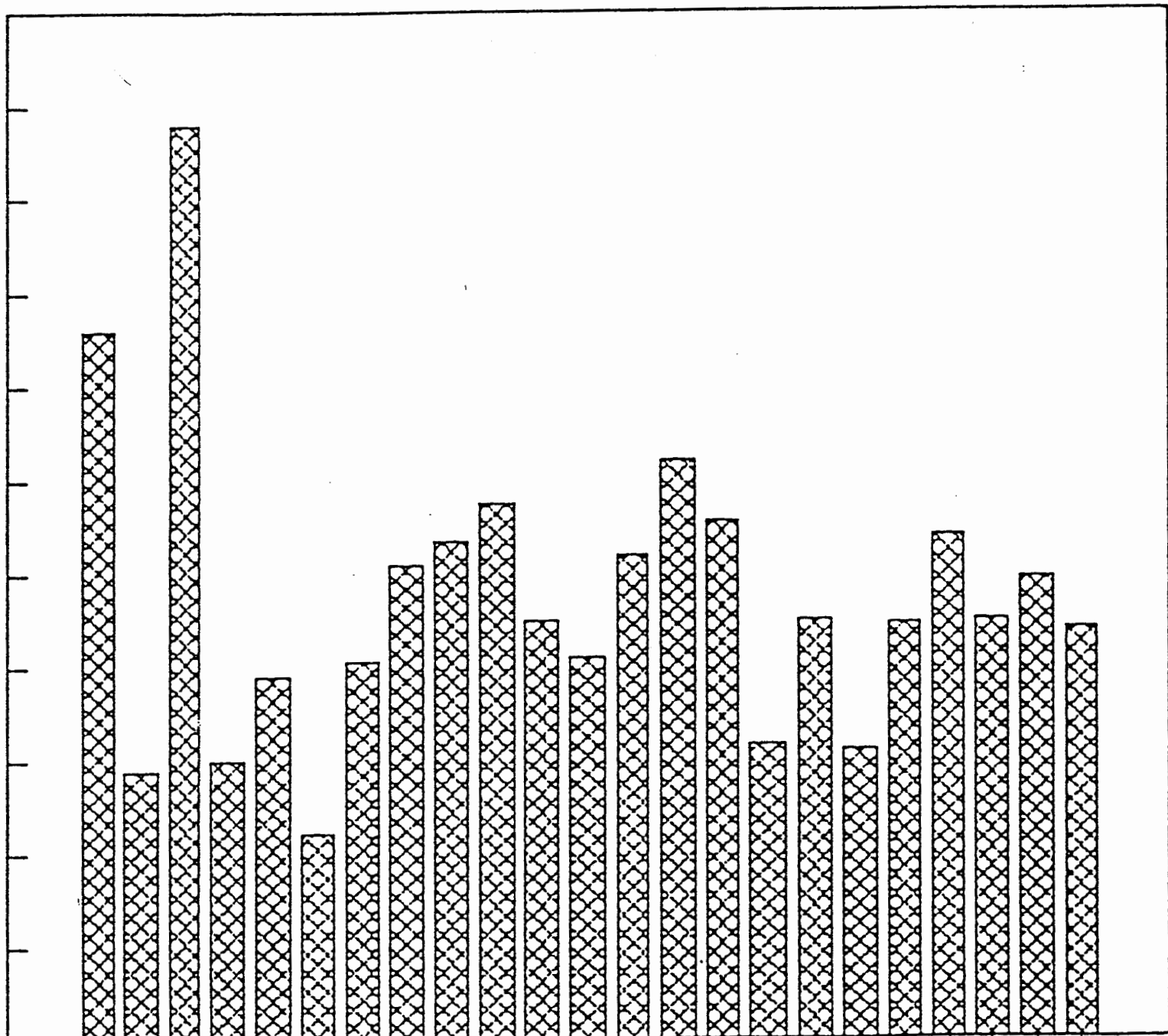
4/91

11/91

5/92

11/92

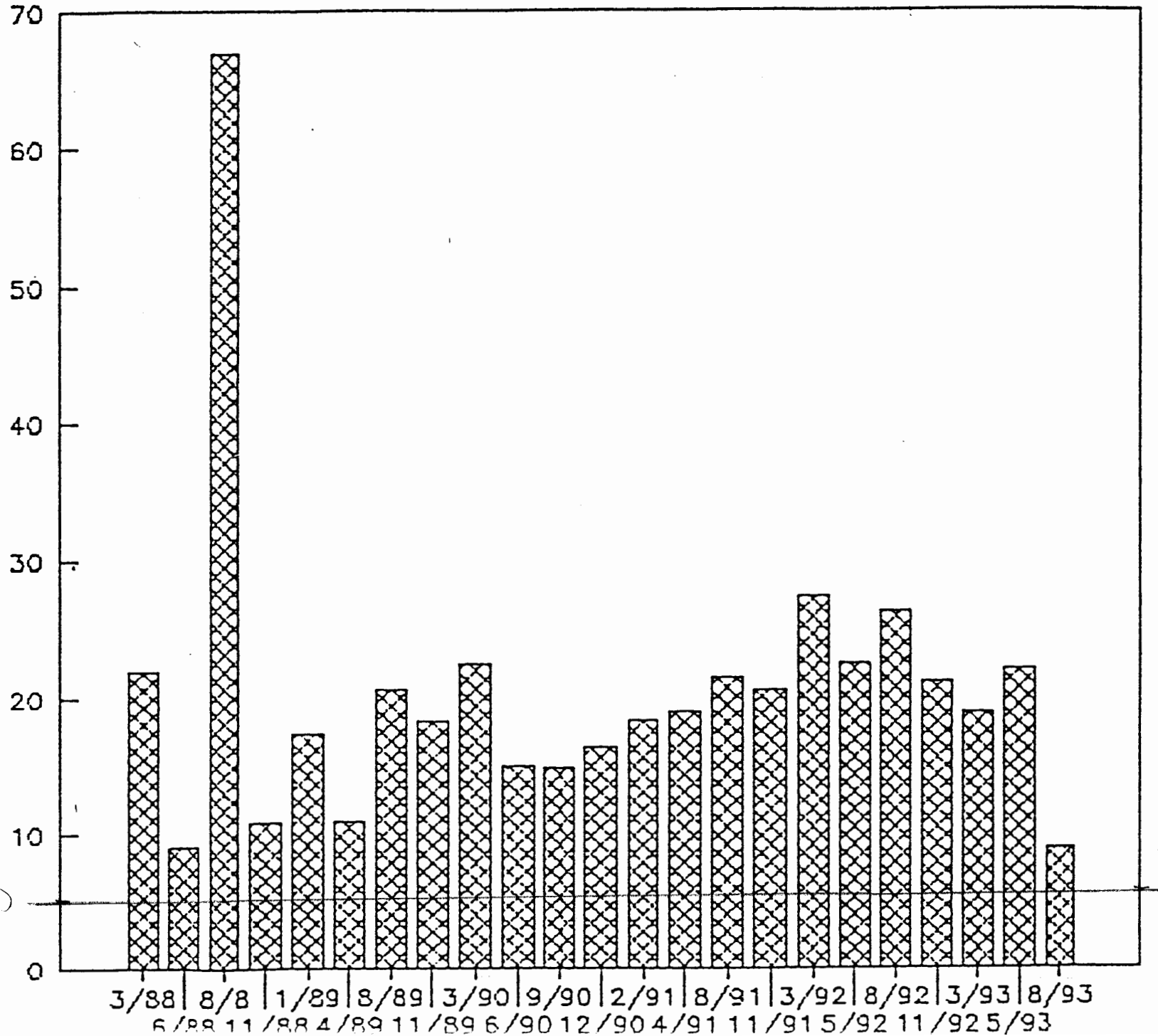
5/93



200 ↑
always
highest

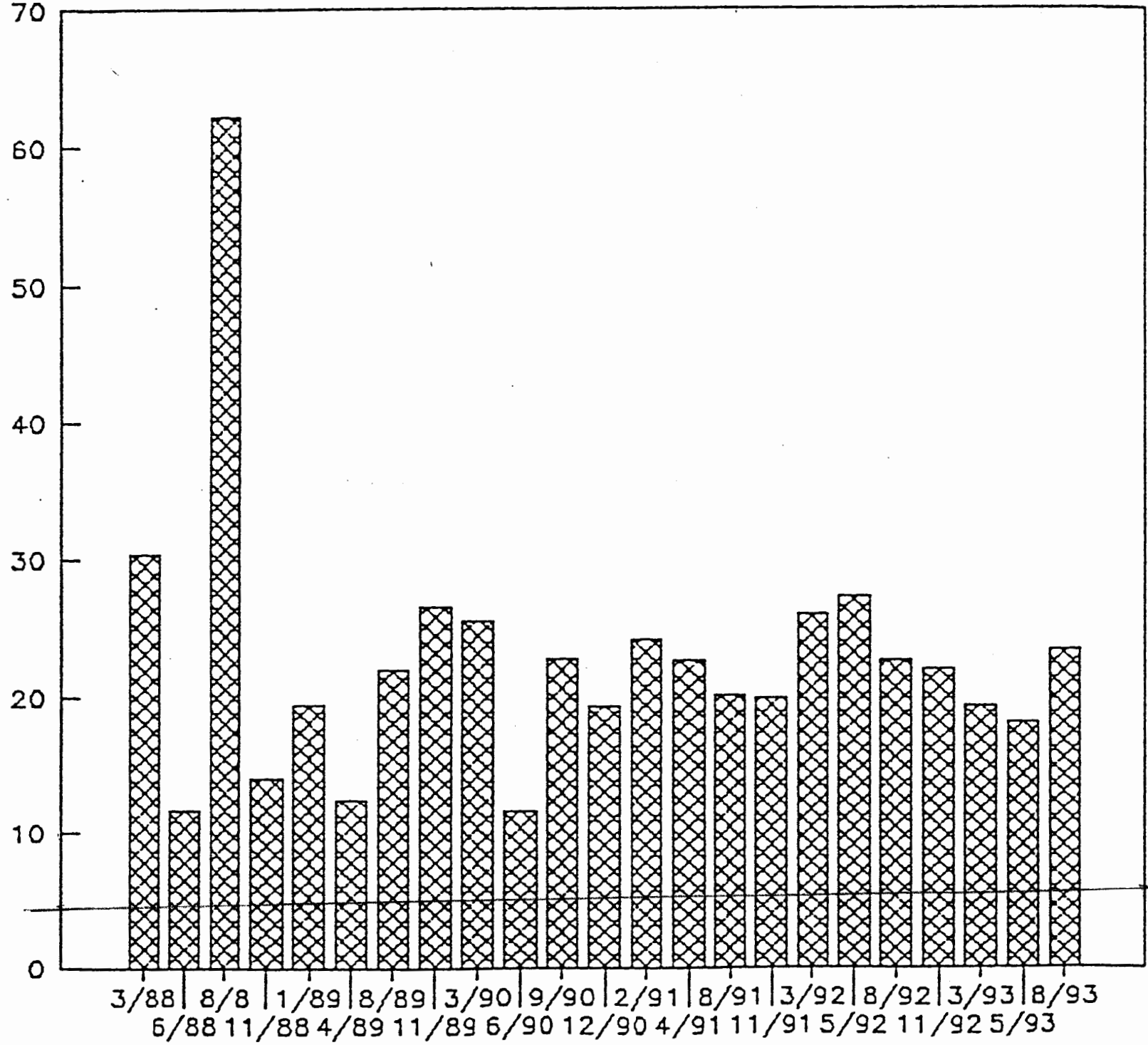
Production - 1,1 DCA

ppb

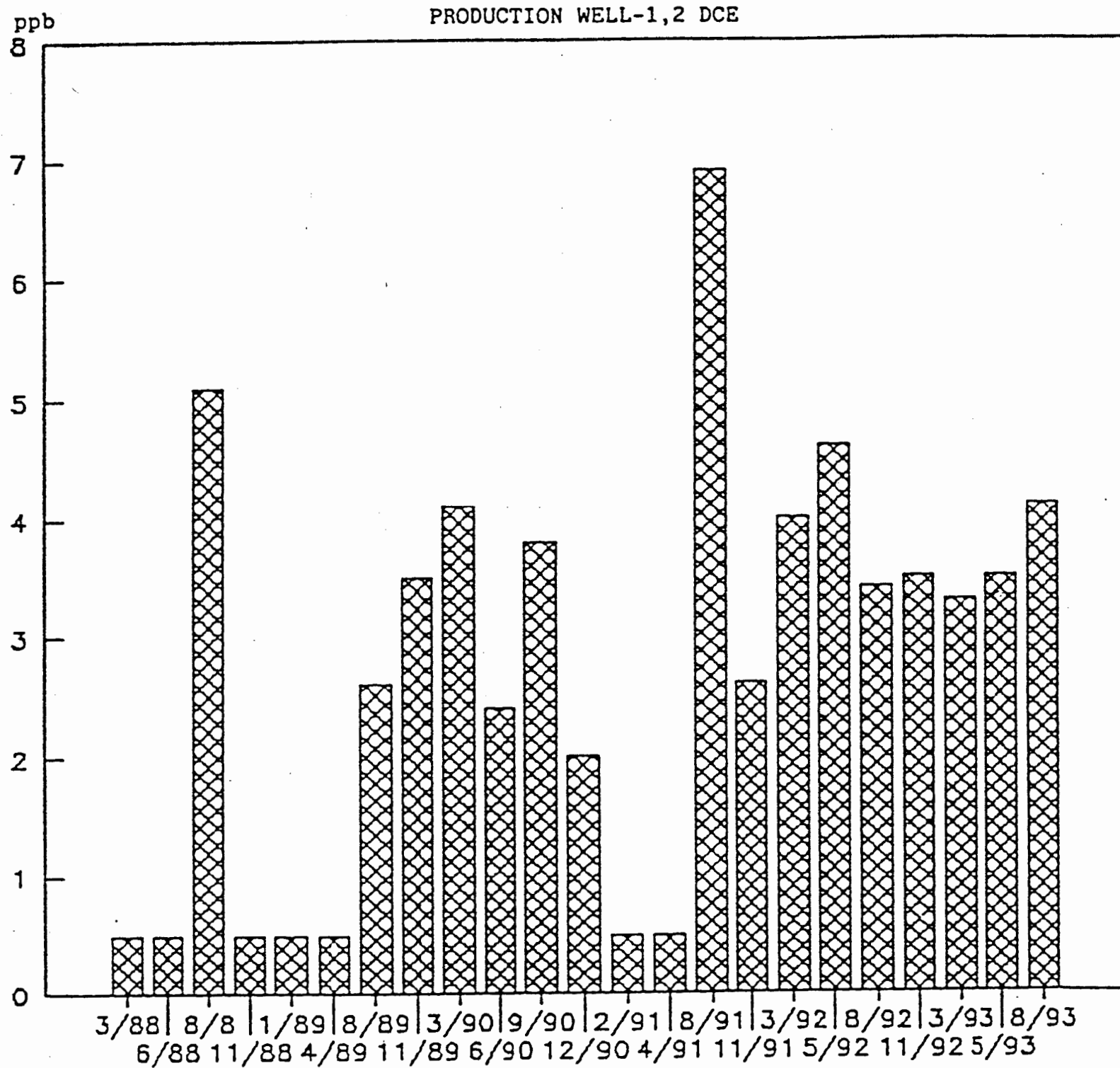


ppb
70

Production - TCE



70 ↑
always
below

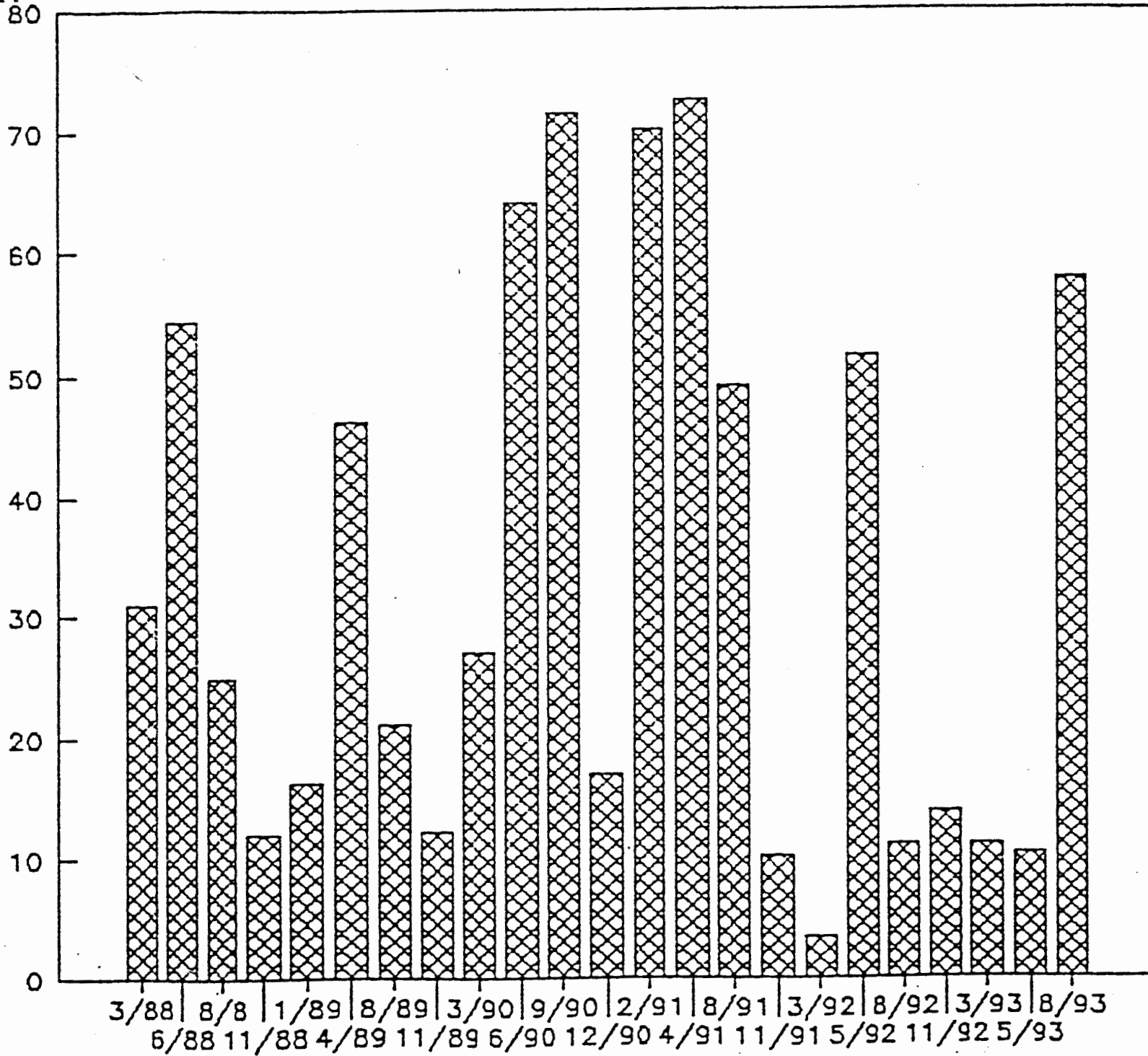


no
flavor
change



ppb
80

WELL 5-1,1,1 TCA

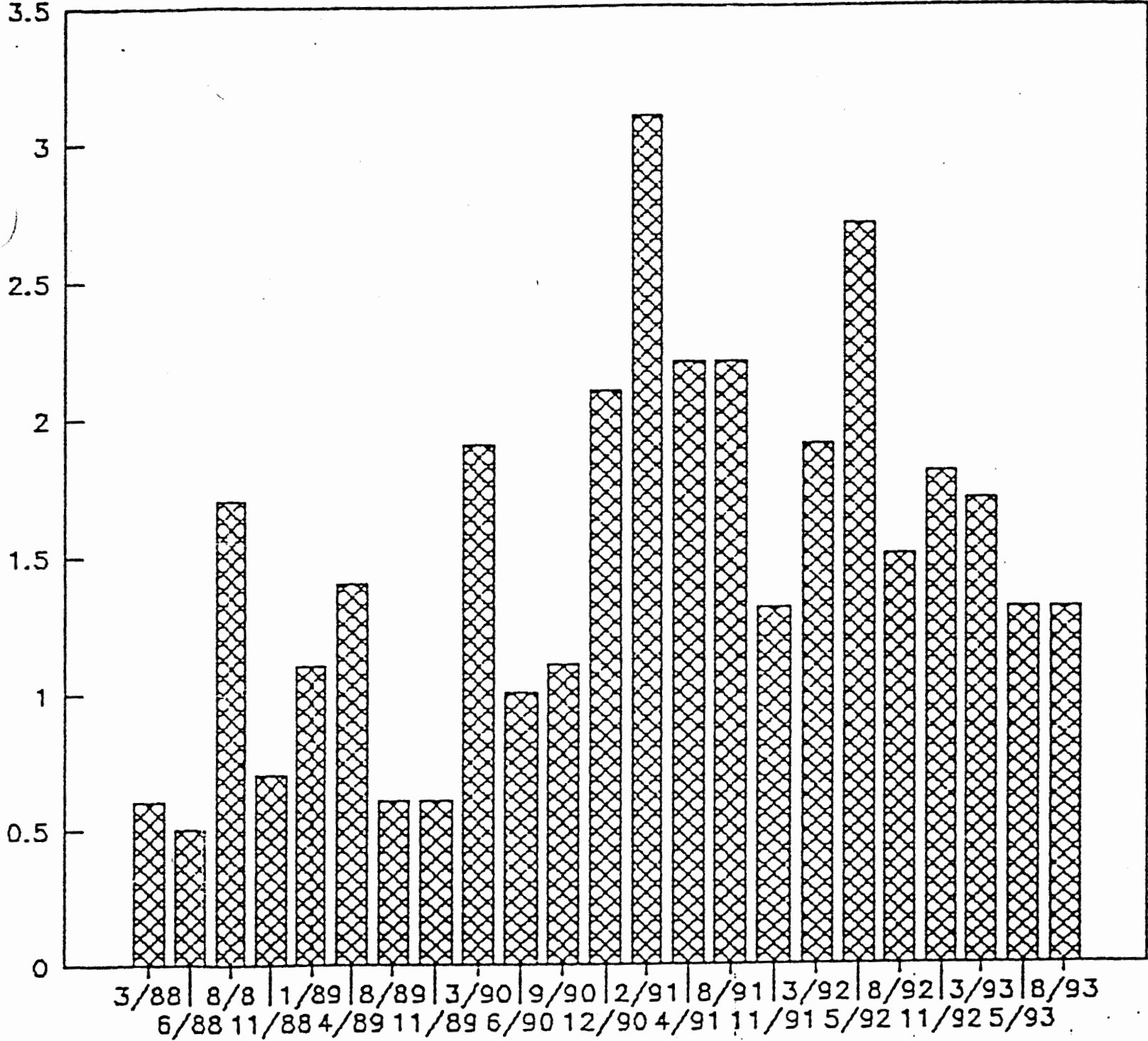


WELL 5- 1,1 DCA

ppb
3.5

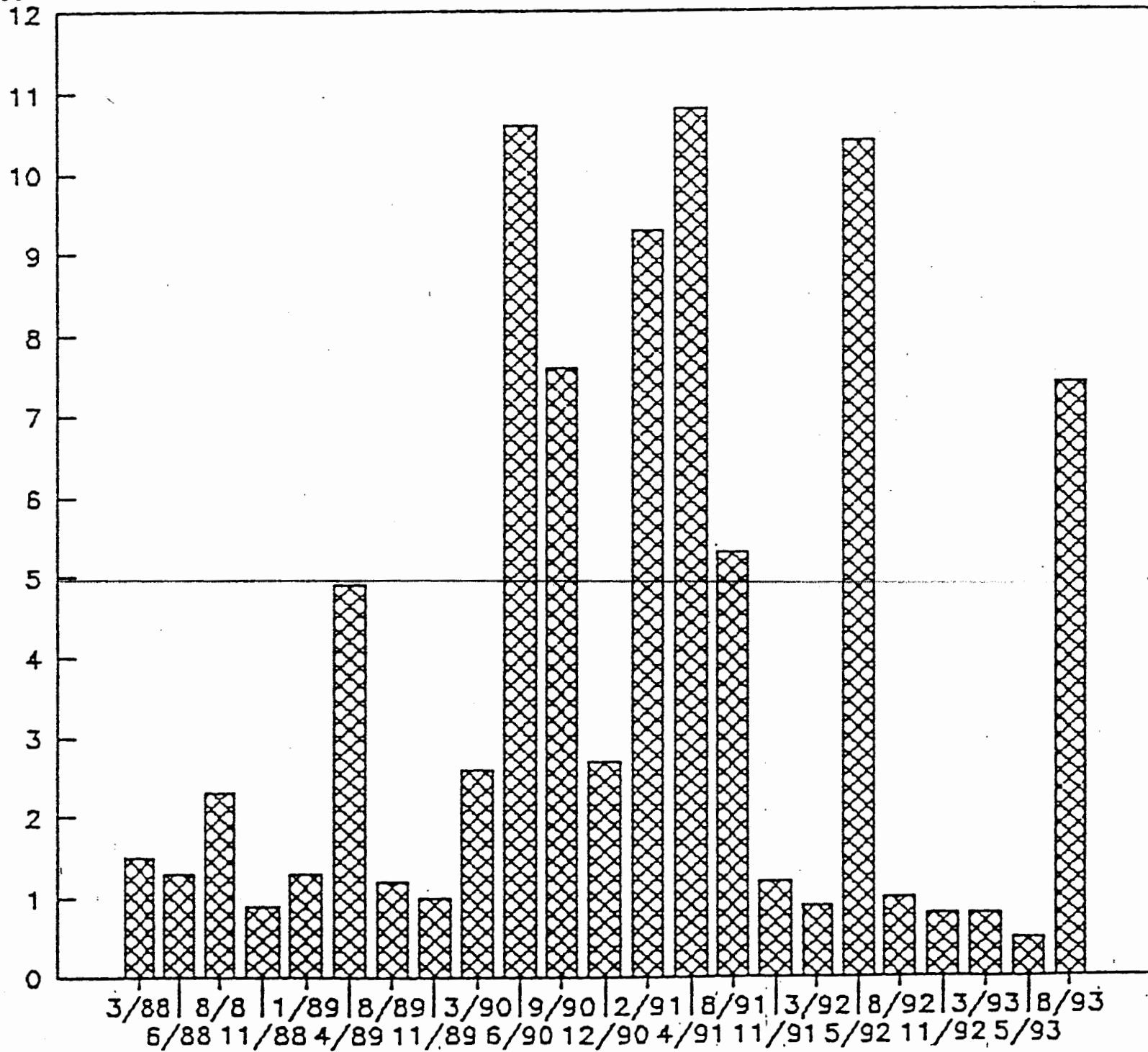
5 ↑

WSP
WSP



ppb
12

WELL 5- TR ILOROETHYLENE



WELL 5-1,2 DCE

ppb

12

11

10

9

8

7

6

5

4

3

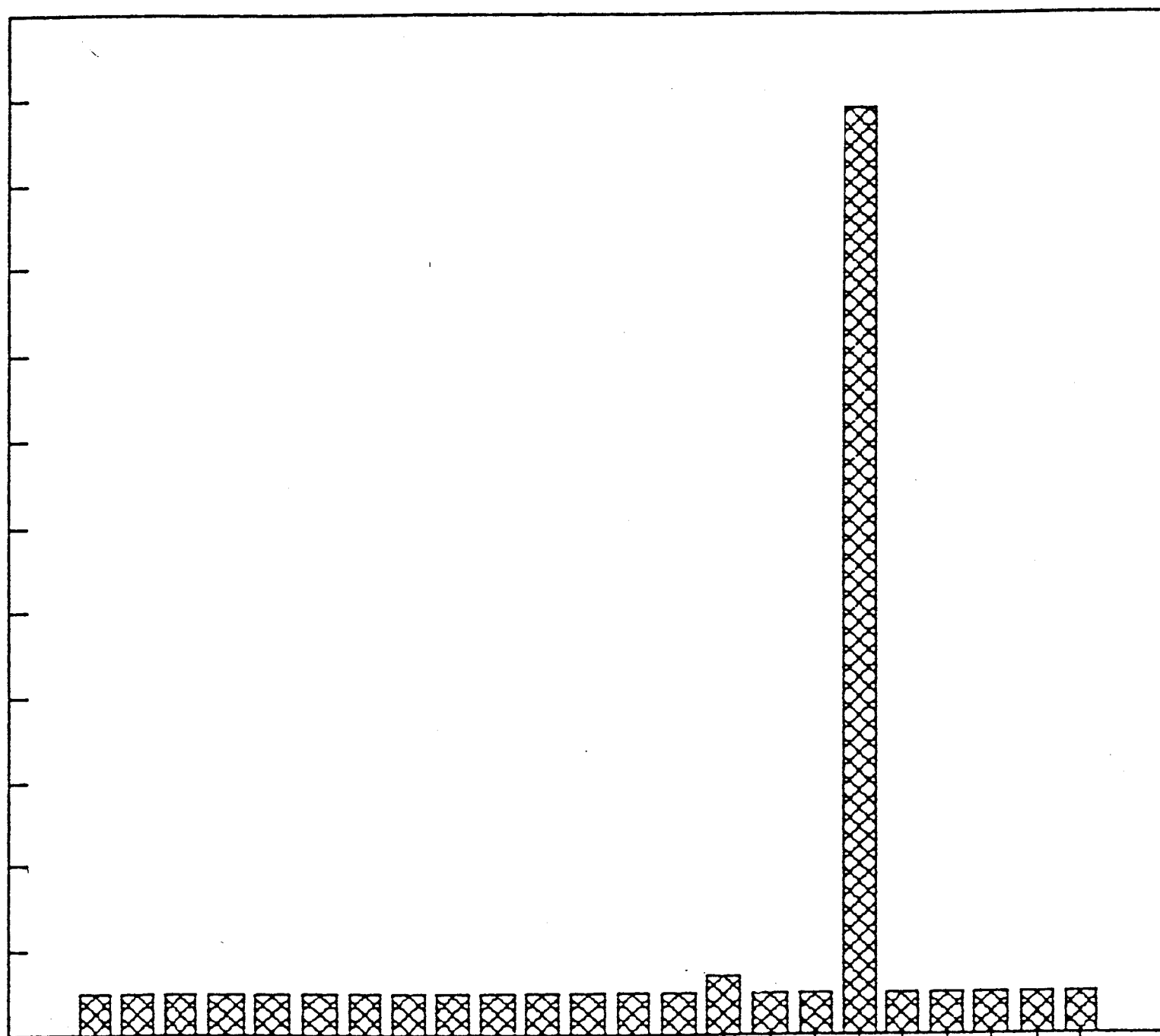
2

1

0

3/88 8/8 1/89 8/89 3/90 9/90 2/91 8/91 3/92 8/92 3/93 8/93
6/88 11/88 4/89 11/89 6/90 12/90 4/91 11/91 5/92 11/92 5/93

Always
slow



APPENDIX VI

**O & M CHECKLISTS AND
EQUIPMENT MANUFACTURERS SPECIFICATIONS**

CANSORB® Disposable/Refillable

MODULAR ADSORBERS for Flows up to 25 GPM

(U.S. PATENT 4,379,750, CANADA PATENT 1,197,075)

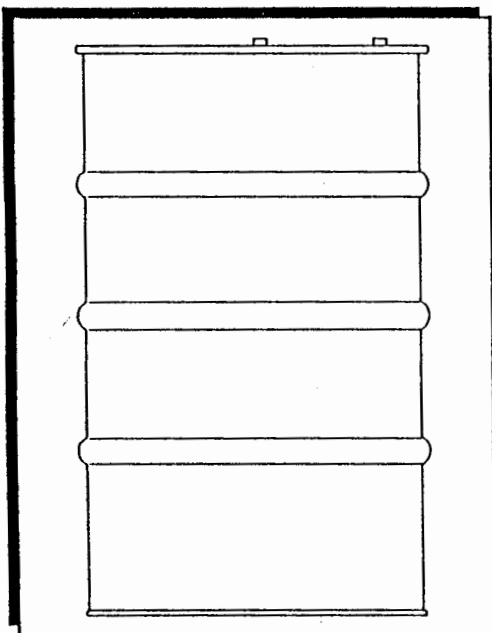
Specifications and Properties

11/15/92

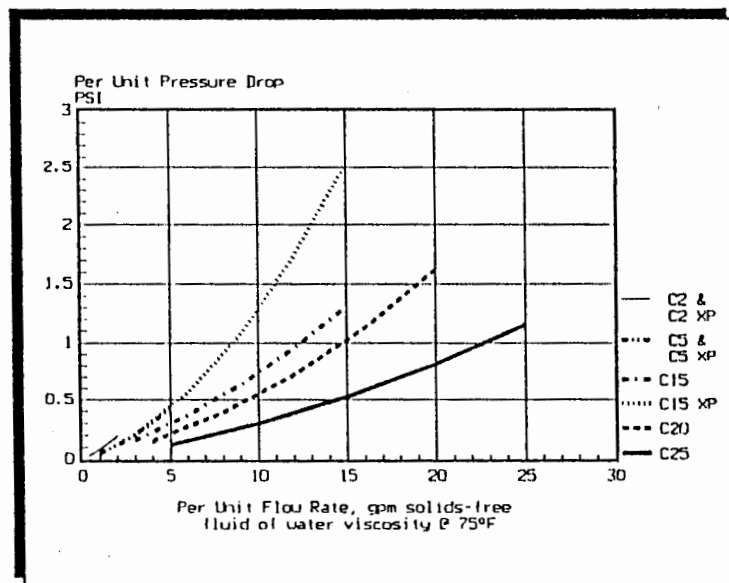
Unit	--- Design Maximum ---			Connections	Diameter/ Height, Inches(c)	Adsorbent Pounds(d)	Minimum Contact, Min.(e)	Shipping Pounds(f)
	GPM(a)	psig.(b)	°F	NPT				
C2	2	12	230	3/4"F	16/23	50	6.9	74
C2 XP	2	10	165	3/4"F	14/27	50	6.9	60
C5	5	12	230	3/4"F	18/29	95	5.0	135
C5 XP	5	12	165	3/4"F	19/31	95	5.0	115
C15	15	12	230	1"F	22/35	175	3.2	245
C15 XP	15	10	165	3/4"F	22/37	175	3.2	205
C20	20	6	230	1"F	26/40	250	3.5	335
C25	25	6	230	1 1/4"F	29/43	330	3.6	430

(a) Hydraulic maximum; contact time may require lower flow, see (e). (d) Virgin TIGG 5D 1240 Activated Carbon, see (f).
(b) Per unit. Series pressure additive on upstream units(s). (e) Superficial at maximum flow.
(c) Primary adsorber vessel, including support assembly. (f) Active carbon basis. Other adsorbents, prewetting will change.

Model numbers give maximum design GPM for water and other low viscosity liquids. Maximum flows may be lower for viscous liquids or to obtain ultralow impurity levels through extended adsorbent:liquid contact time. A patented liquid collection system promotes even flow distribution for efficient purification and adsorbent utilization, at low flow resistance. Construction is double epoxy/phenolic or corrosion resistant coating lined steel. The XP vessels are polyethylene for severely corrosive duty, D.O.T. Specification 34. C5 and C15 are D.O.T. 5B hazardous waste containers. These units, proven by over 10 years field experience, are particularly useful for collecting hazardous organic and radioactive wastes.



FLOW RESISTANCE



TIGG CORPORATION

BOX 11661
PITTSBURGH, PA 15228

TELEPHONE: (412) 563-4300

TELEX: 269312 (RCA)

FAX: 412-563-6155

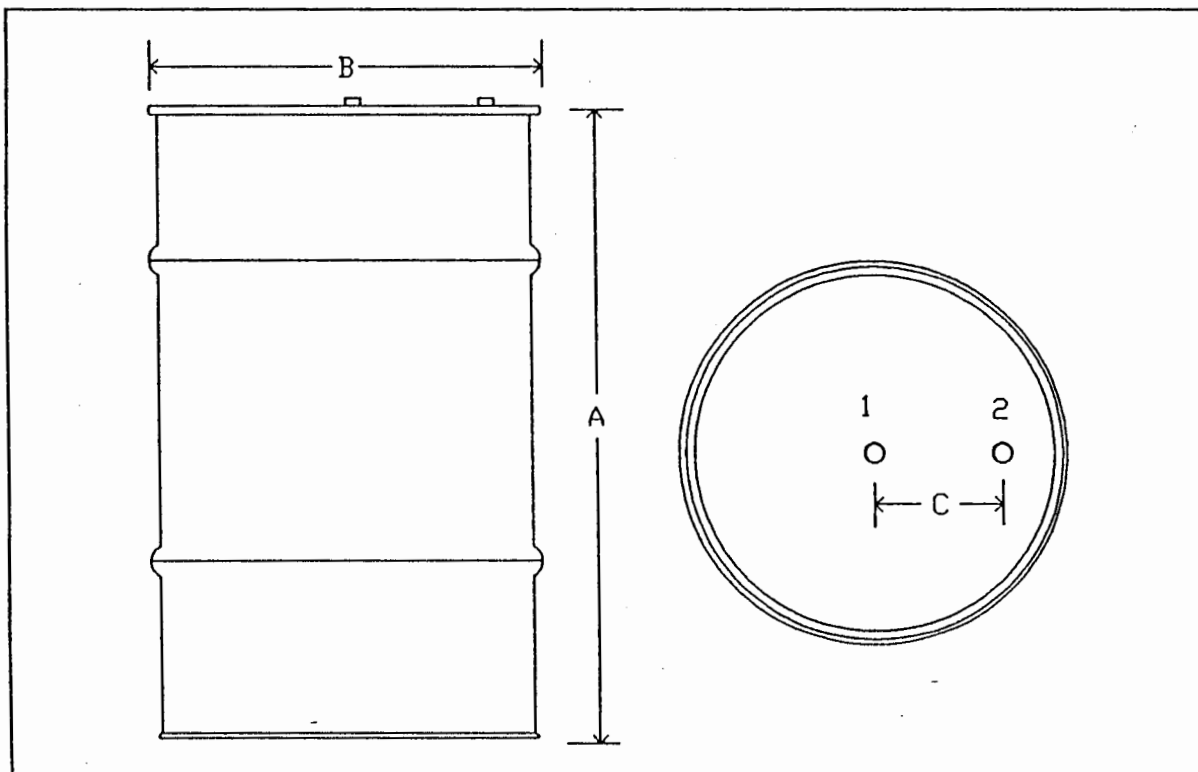
CABLE: TIGGCOR PITTSBURGH

MANUFACTURING: TIGG SOUTHCENTRAL OPERATIONS
ROUTE 16 EAST

CANSORB[®] Disposable/Refillable

MODULAR ADSORBERS for Flows up to 25 GPM

(U.S. PATENT 4,379,750, CANADA PATENT 1,197,075)



DIMENSIONS (Inches)

UNIT	A	B	C	1 (NPT)	2 (NPT)
C5	29 ³ / ₄	18	6 ¹ / ₄	³ / ₄ F	³ / ₄ F
C15	35 ¹ / ₂	22	8 ¹ / ₂	1 F	1 F
C20	40	25 ³ / ₄	18 ³ / ₄	1 F	1 F
C25	43	29	20 ³ / ₄	1 ¹ / ₄ F	1 ¹ / ₄ F

FITTING SCHEDULE:

1. INLET

2. OUTLET

4/10/92



TIGG CORPORATION

BOX 11661
PITTSBURGH, PA 15228

TELEPHONE: (412) 563-4300

TELEX: 269312 (RCA)

FAX: 412-563-6155

CABLE: TIGGCOR PITTSBURGH

MANUFACTURING: TIGG SOUTHCENTRAL OPERATIONS
ROUTE 16 EAST

RED JACKET'S WATERBEAR



3-Wire Models



2-Wire Models

MODEL	HORSE POWER	SERIES	DEPT AT 40 P.S.I.	Price
33CNI-CN9AD	115V 1/3-230V	5-G.P.M.	160'	379.10
50CNI-CN13AD	115V 1/2-230V	5-G.P.M.	260'	404.00
75CNI-CN16AD	3/4-230V	5-G.P.M.	340'	548.25
100CNI-20AD	1HP-230V	5G.P.M.	440'	691.90
150CNI-28AD	1 1/2 HP-230V	5-G.P.M.	640'	884.00
33CNI-CN6BC	115V 1/3 HP-230V	10-G.P.M.	100'	358.70
50CNI-CN9BC	115V 1/2 HP-230V	10-G. P.M.	180'	374.00
75CNI-12BC	3/4 HP-230V	10-G.P.M.	260'	464.95
100CNI-CN14BC	1HP-230V	10-G.P.M.	320'	583.10
150CNI-CN18BC	1 1/2 HP-230V	10-G.P.M.	400'	802.40
200TI-N23BC	230V 2HP-460V	10-G.P.M.	480'	1049.75
300TI-N32BC	230V 3HP-460V	10-G.P.M.	760'	1467.95
50CNI-CN5CC	115V 1/2 HP-230V	18-G.P.M.	60'	357.00
75CNI-CN6CC	3/4 HP-230V	18-G.P.M.	80'	463.25
100CNI-CN8CC	1HP-230V	18-G.P.M.	140'	543.15
150CNI-CN11CC	1 1/2 HP-230V	18-G.P.M.	240'	815.15
200TI-NI4CC	230V 2HP-460V	18-G.P.M.	320'	975.80
300TI-NI9CC	230V 3HP-460V	18-G.P.M.	440'	1320.05
500TI-N30CC	230V 5HP-460V	18-G.P.M.	840'	1565.70
100CNI-CN7GC	1HP-230V	22-G.P.M.	120'	483.65
150CNI-CN10GC	1 1/2 HP-230V	22-G.P.M.	220'	701.25
200TI-N12GC	230V 2HP-460V	22-G.P.M.	280'	879.75
300TI-N17GC	230V 3HP-460V	22-G.P.M.	440'	1190.85
500TI-N28GC	230V 5HP-460V	22-G.P.M.	800'	1547.85

1 1/2 HP On Up To 5HP Available In Three Phase.

2HP Up To 5HP Available In 3 Phase 460 Volt

Three Wire Units Complete With Control Boxes Or Magnetic Starters.

Call Duff To Custom Make A Complete Package

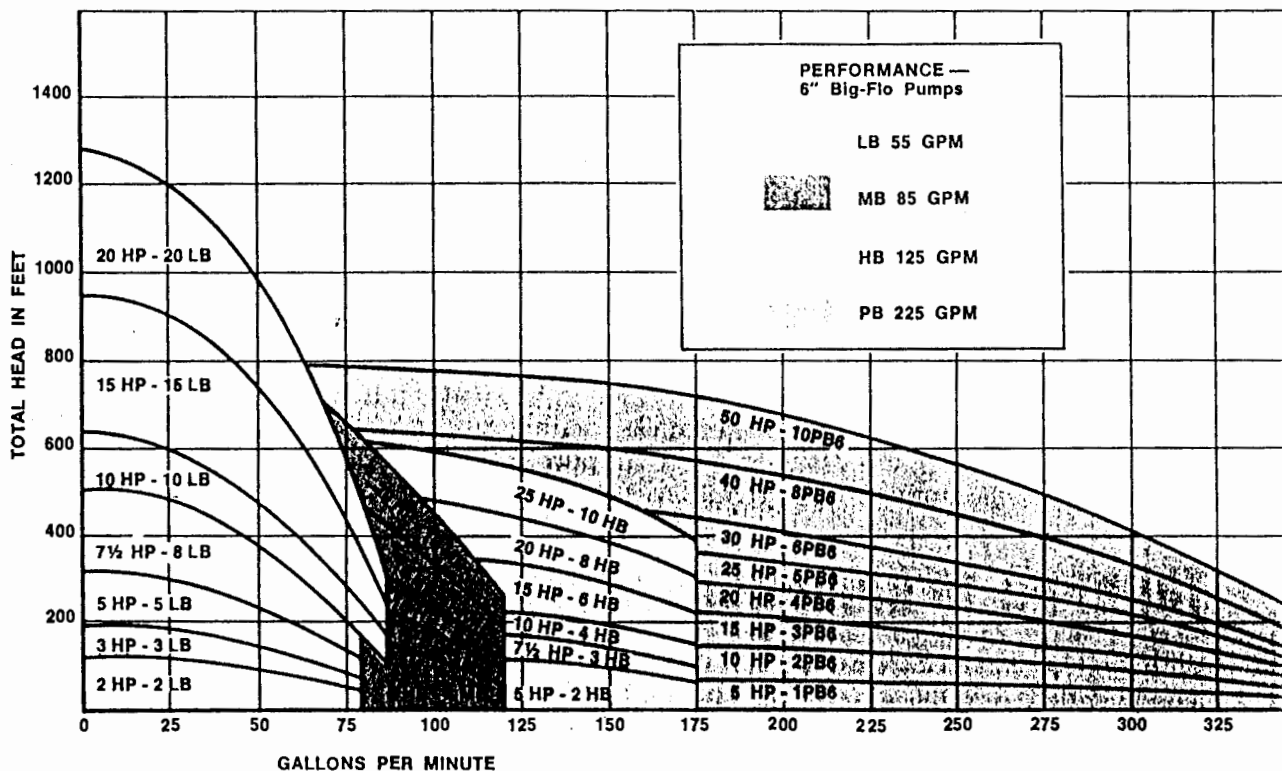


RED JACKET

big-flo® submersible pumps

for farms. motels.
apartments. industry

performance



Red Jacket 4- and 6-inch Big-Flo® Submersible Pumps are available in a capacity that exactly matches your requirements. The model offering the most economical and efficient sizing for your needs can be selected from the performance charts shown at the right. The chart at top is for selecting 6-inch pumps. Big-Flo 4-inch models are shown in the chart at the bottom.

SEND US YOUR
SPEC'S AND
LET US FIGURE
YOUR PUMP
REQUIREMENTS

big-flo
engineered
simplicity

Engineered simplicity, a Red Jacket innovation in the pump industry, simply means designing efficient pumps with minimal moving parts, to make installation and service as easy, and inexpensive as possible. The concept was developed years ago, when Red Jacket engineers were designing and perfecting the submersible pump.

FOR PUMP INFORMATION - PARTS - SERVICE
CALL DUFF CO. (215-275-4453)

AT NIGHT

215-646-0792
215-279-9287

ELECTRIC CONTROL AND DISTRIBUTION

**JEFFERSON**

Encapsulated types (3-15 KVA) or cabinet style types (30-112.5 KVA). For lighting and other industrial applications that require a change or step down in voltage. Also used as isolation transformers between power line and driven equipment. Operate on 60 Hz only. Connection diagram included.

ENCAPSULATED TYPES

Class (185) H Insulation, 115°C rise. Nonventilated enclosure. Front access to large wiring compartment. 2-5% Taps FCBN.* Indoor or outdoor use.

CABINET TYPES

Class (220) R insulation, 150°C rise. Large wiring compartment with terminal board. 6 taps at 2½% (2FCAN-4FCBN).* Indoor use only.

TRANSFORMER SELECTION

1. **Determine Electrical Load**
 - A. Voltage required by load
 - B. Amperes or KVA required by load
 - C. Frequency in Hz

Note: Above information can be obtained from equipment nameplate or instruction manual.
2. **Determine Supply Voltage**
 - A. Voltage of supply (source)
 - B. Frequency in Hz; frequency of the line supply and electrical load must be the same (60 Hz only).
3. **Select a transformer with a standard KVA capacity equal to or greater than needed to operate the load.**
 - A. Primary taps are available on many models to compensate for line voltage variations.
 - B. Use the following formulas to determine proper KVA size transformers:
 - 1) When volts and amps are known
$$3\text{-PH KVA} = \frac{\text{volts} \times \text{amps} \times 1.73}{1000}$$
 - 2) To determine amperes when KVA and volts are known:
$$\text{Amps} = \frac{3\text{-PH KVA} \times 1000}{\text{volts} \times 1.73}$$

Example:

Load is a 3-PH induction motor, 25 horsepower @ 208V, 60 Hz, motor current is 68 amps.

$$\frac{208 \text{ volts} \times 68 \text{ amps} \times 1.73}{1000} = 24.5 \text{ KVA}$$

A 30 KVA transformer would be selected

Note: If motors are started more than once per hour, increase minimum transformer KVA by 20%. When motor service factor is greater than 1, increase full load amps proportionally. Example: If service factor is 1.15 increase value by 15%.

TRANSFORMER SPECIFICATIONS AND ORDERING DATA																				
KVA	Primary Voltage	Secondary Voltage	Dimension Diagram	A	B	Dimensions				C	D	E	F	G	H	Jefferson Model	Stock No.	List	Each	Shpg. Wt.
3	0.1		A	13 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "	0 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	—	—	—	—	—	213-104	5A693	\$410.00	\$349.67	100.
6	0.1		A	13 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	—	—	—	—	—	213-124	5A694	\$43.73	\$53.11	115.
9	0.1		A	15 $\frac{1}{2}$ "	21 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	20 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	—	—	—	—	—	213-144	5A695	\$791.08	\$659.22	221.
15	0.1		A	15 $\frac{1}{2}$ "	21 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	20 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	—	—	—	—	—	213-164	5A696	\$1101.48	\$917.90	280.
30	480	208/120	B	30 $\frac{1}{2}$ "	20 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "	14	18 $\frac{1}{2}$ "	9	—	—	—	—	—	—	223-3194	5A697	\$1324.43	\$1105.36	310.
45			B	30 $\frac{1}{2}$ "	20 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "	14	18 $\frac{1}{2}$ "	9	—	—	—	—	—	—	223-3214	5A698	\$1690.88	\$1409.05	400.
75			B	30 $\frac{1}{2}$ "	20 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "	14	18 $\frac{1}{2}$ "	9	—	—	—	—	—	—	223-3234	5A699	\$394.69	\$1995.57	600.
112.5			C	33 $\frac{1}{2}$ "	24 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "	22 $\frac{1}{2}$ "	10 $\frac{1}{2}$ "	—	—	—	—	—	—	223-3254	5A700	\$3399.14	\$2832.62	950.

(*) FCBN (Full Capacity Below Normal); FCAN (Full Capacity Above Normal)

SEE WARRANTY INFORMATION ON PAGE OPPOSITE INSIDE BACK COVER

287

DIFFERENTIAL PRESSURE GAGES AND PITOT TUBES

TEST INSTRUMENTS

MAGNEHELIC® DIFFERENTIAL PRESSURE GAGES

- Typical applications: measures fan and blower pressures, filter resistance, air velocity, furnace draft, pressure drop across orifice plates, liquid levels with bubbler systems, fluid amplifier/fluidic system pressure
- Dual scale air velocity units
- 4" dials indicate low air or gas pressure—positive, negative, or differential
- Calibrated in inches water column and feet per minute for air velocity measurements using a pitot tube
- Side and rear pressure connections
- High resistance to shock and vibration
- $\pm 2\%$ full scale accuracy and ambient temperature range from 20-140°F
- Rated total pressure from -20"Hg to 15 PSIG

Pressure Range in W.C.	Minor Div. Pressure Range	Velocity Range F.P.M.	Dwyer Model	Stock No.	List	Each*	Shpg. Wt.
0-0.5	0.01	500-2800	2000-0AV	3T084	\$54.88	\$43.90	1.9
0-1	0.02	500-4000	2001AV	2T644	54.88	43.90	1.8
0-2	0.05	1000-5600	2002AV	2T645	54.88	43.90	1.8
0-10	0.20	2000-12,500	2010AV	2T648	54.88	43.90	1.6

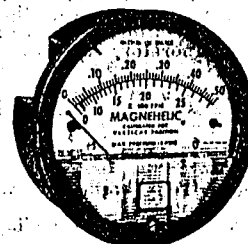
DIFFERENTIAL PRESSURE KIT

- Portable kit • Adapts Magnehelic® gage for portable use
- Includes carrying case, 9 ft of 3/16" ID rubber tubing, terminal (sensing) tube, and stand hang bracket

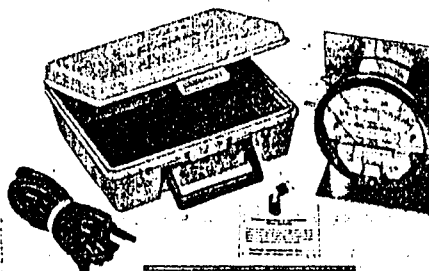
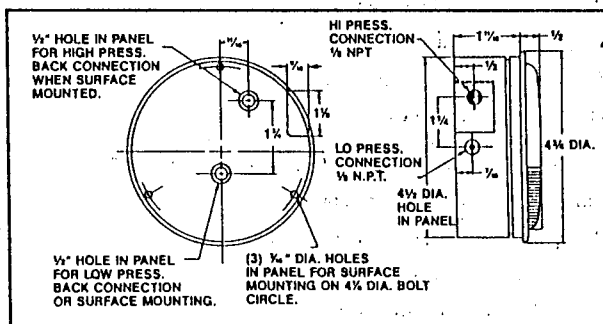
No. 2T648. Dwyer® Brand (A-432). Shpg. wt. 1.0 lbs. List \$20.50.
Each\$16.40*



No. 3T064

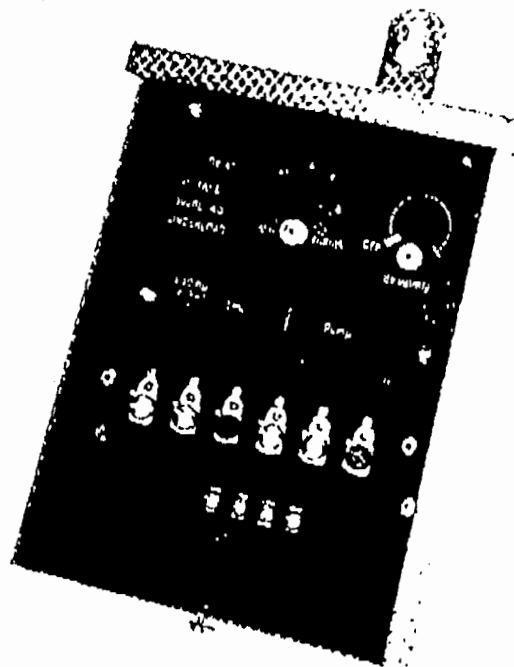


DIMENSIONS



(Gage
not
Included)

No. 2T648



COYOTE

1 - 10 HP

- NO PLUMBING
- NO PROBES
- FULLY AUTOMATIC

1 - 10 hp model protects high horsepower single phase pumps and motors from:

UNDERLOAD

running dry
gas locking
air locking

OVERLOAD

excessive current draw
sand locking

VOLTAGE

high voltage
low voltage

UNDERLOAD OR LACK OF FLUID

On motor start-up, circuitry waits two seconds before monitoring for lack of fluid. Underload sensitivity adjustable plus or minus 20% from point at which tune-in light is brightest.

trip delay
1 second

reset delay
adjustable 1 minute to 12 hours

OVERLOAD

Tries three times to restart then Coyote locks out pump and overload light blinks.

trip amps
150% of normal

trip delay
1/4 second

reset delay
60 seconds

VOLTAGE FAULT

Plus or minus 2%. If three voltage faults occur within a fifteen minute period while pump is running, Coyote locks out pump and voltage light blinks.

trip reset
190V 200V

reset trip
280V 270V

trip delay
2 seconds

reset delay
60 seconds

RANDOM START

When energizing Coyote by turning on power at circuit breaker or fused disconnect there is a delay of 4 to 10 seconds before Coyote turns on the pump. This "random start" feature is designed to prevent many pumps served by a single power source from all restarting at the same instant when power is restored after a power outage.

SIGNAL

Normally open dry contact closes to activate alarm on any fault condition.

THIS 1 - 10 HP MODEL REQUIRES A MAGNETIC CONTACTOR. IT IS AVAILABLE AS PICTURED OR IN 12" x 12" x 6" NEMA 3R ENCLOSURE WITH A MAGNETIC CONTACTOR BUILT-IN.

ALSO AVAILABLE WIRED FOR 1/3 TO 2 HP MOTORS IN WHICH CASE COYOTE CARRIES FULL MOTOR LOAD AND NO MAGNETIC CONTACTOR IS NEEDED.

COYOTE
MANUFACTURING, INC.

ROUTE 66 • DRAWER 910, TIJERAS, NM 87058
800-468-1177 • 505-281-1177

COYOTE

PROTECTS THREE PHASE PUMPS and MOTORS from

UNDERLOAD

running dry
gas locking
air locking
clogged inlet
frozen discharge line

PHASE

phase loss
phase reversal

OVERLOAD

excessive current draw
sand locking
broken wire to motor

VOLTAGE

high voltage
low voltage
voltage imbalance

Easy calibration.
Just hold in
reset button and turn
sensitivity knob until
light is brightest.

If pump underloads
restart delay is
adjustable.

Built-in sensors
simplify installation

Indicator lights show
fault condition



NO PLUMBING • NO PROBES • FULLY AUTOMATIC

FOUR MODELS

208V model 1/3 - 75 hp
230V model 1/3 - 100 hp
460V model 1/3 - 200 hp
575V model 1/3 - 250 hp

AVAILABLE OPEN CHASSIS
(AS PICTURED) OR IN
RAINFOOF ENCLOSURE

No need to specify horsepower
when ordering. Each voltage model
will operate any horsepower motor
in its range. Example: the same 460
volt Coyote operates a 1/3 hp or a
200 hp motor.

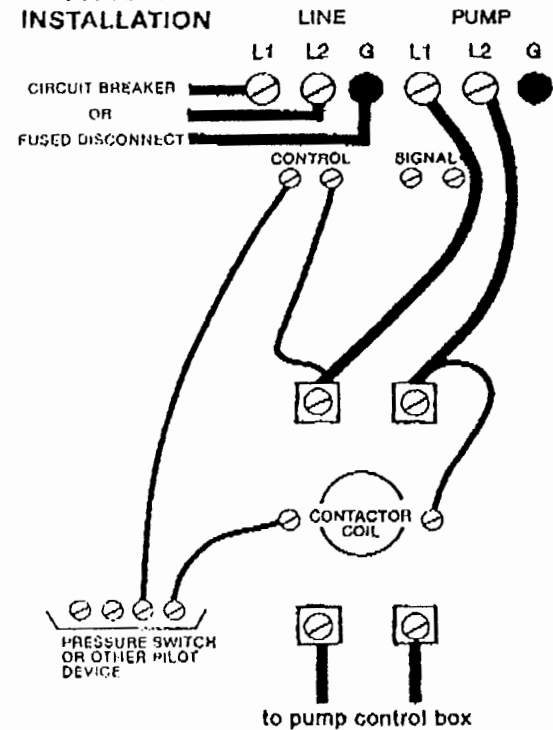
COYOTE

MANUFACTURING, INC.

ROUTE 66 • DRAWER 910, TIJERAS, NM 87059

COYOTE

TYPICAL INSTALLATION



EASY INSTALLATION:

Just wire as shown, run pump normally, hold in reset button and turn sensitivity knob until light above it is brightest.

What does it do?

Coyote shuts off the pump:

- If the pump falls to pump fluid because there is no fluid available to it, or because it is gas locked or air locked, or because the Inlet is clogged;
- If the voltage is improper;
- If the motor draws excessive current

For how long does it shut down?

- If the pump runs out of fluid, Coyote restarts it after waiting the interval you choose on the timer.
- If the Incoming power goes bad, Coyote restarts the pump when proper power is restored.
- If the motor draws excessive current, Coyote will try three times to restart it. If the overcurrent condition is not cured, Coyote locks out the pump and the overload light blinks.

How does it work?

Coyote monitors the incoming power and the electrical characteristics of the motor. When the pump quits pumping fluid, those characteristics change and Coyote shuts it off.

What if there is not enough fluid to pump when the pump restarts?

Coyote will let it run just one second, shut it off, wait the same amount of time and try again, wait and try again, wait and try again, until there is enough to pump.

On what kinds of pumps does it work?

Submersibles, centrifugals, jets, and sumps.

In what kinds of applications?

Water wells, oil wells, booster and lift stations, chemicals transfer, mine dewatering, sewage treatment, solution mining, food processing, construction dewatering, and clean-up of aquifers contaminated by hydrocarbons are the most common.

How about power outages?

When the power is out, the pump won't run. When it comes back on, Coyote automatically resets itself. There is no need to touch anything.

Do I have to buy a different Coyote for each horsepower pump?

No. The adjustable sensitivity knob permits a single Coyote model to serve a wide range of motors.

What about protection from the environment?

The outer box is steel with knockouts on the bottom. The insides of Coyote are sealed in plastic to keep out moisture, insects, and blowing sand and dust.

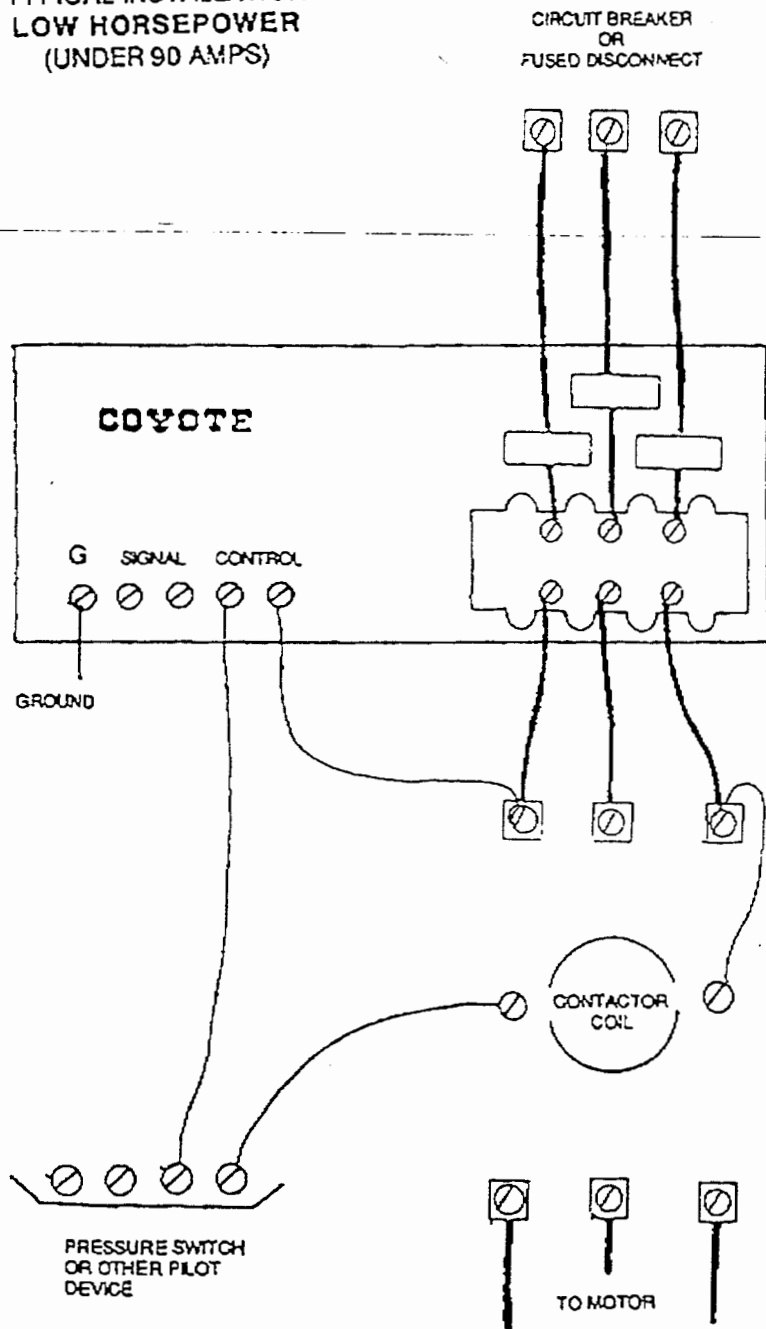
What about lightning induced power surges?

Rugged and effective protection for the electronics of Coyote is built-in.

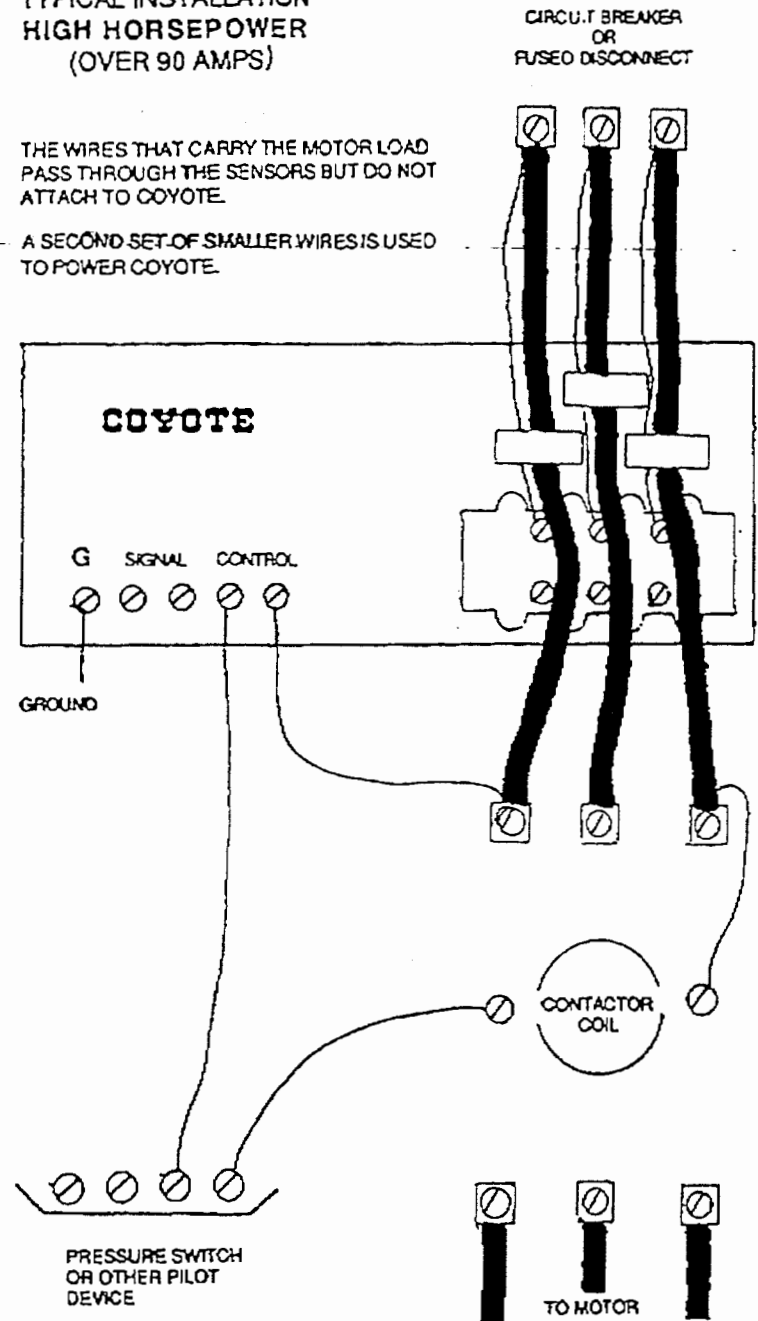
LIMITED WARRANTY

Coyote products are warranted against faulty materials or workmanship for one year from date of manufacture. Coyote's liability under this warranty is limited to repairing, replacing, or at its option issuing credit for any product returned during this period, and provided that any such defect has not been caused by misuse, neglect, improper installation, repair, or alteration. Coyote will not be liable and specifically disclaims responsibility to any party for loss, direct or indirect, for costs, expenses, or for consequential damage of any nature.

**TYPICAL INSTALLATION
LOW HORSEPOWER
(UNDER 90 AMPS)**



**TYPICAL INSTALLATION
HIGH HORSEPOWER
(OVER 90 AMPS)**



THREE PHASE COYOTE TECHNICAL DATA

OPERATING RANGE

-20° C TO +70° C temperature
0% to 95% humidity noncondensing

HORSEPOWER RANGE

208V model	1/3 - 75 hp	50 Hz or 60 Hz
230V model	1/3 - 100 hp	50 Hz or 60 Hz
460V model	1/3 - 200 hp	50 Hz or 60 Hz
575V model	1/3 - 250 hp	50 Hz or 60 Hz

RANDOM START

When energizing Coyote by turning on power at circuit breaker or fused disconnect there is a delay of 4 to 10 seconds before Coyote turns on the pump. This "random start" feature is designed to prevent many pumps served by a single power source from all restarting at the same instant when power is restored after a power outage.

VOLTAGE FAULT

	low voltage		high voltage	
	trip	reset	reset	trip
208V model	172V	181V	235V	244V
230V model	190V	200V	260V	270V
460V model	380V	400V	520V	540V
575V model	475V	500V	650V	675V

voltage imbalance 14% any line from the average of the three lines.

trip delay
2 seconds

reset delay
60 seconds

Plus or minus 2%. If three voltage faults occur within a fifteen minute period while pump is running, Coyote locks out pump and voltage light blinks.

PHASE LOSS OR REVERSAL

trip delay	reset delay
1 second	60 seconds

OVERLOAD

trip amps
150% of normal

trip delay
1/4 second

reset delay
60 seconds

Tries three times to restart then Coyote locks out pump and overload light blinks.

UNDERLOAD OR LACK OF FLUID

trip delay	reset delay
1 second	adjustable
	15 seconds - 12 hours

On motor start-up, circuitry waits two seconds before monitoring for lack of fluid.

Underload sensitivity adjustable plus or minus 20% from point at which tune-in light is brightest.

SIGNAL

Normally open dry contact closes to activate alarm on any fault condition.

DIMENSIONS OVERALL

7 1/2" high, 10 1/4" wide, 4 1/2" deep

ALL ABOUT THREE PHASE COYOTES

What does it do?

Coyote shuts off the pump:

- If the pump fails to pump fluid because there is no fluid available to it, or because it is gas locked or air locked, or because the inlet is clogged;
- If the power supplied to the pump is improper, e.g., phase reversed or missing, voltage too high or too low, etc.;
- If the motor draws excessive current or if there is a broken wire to the motor.

For how long does it shut down?

- If the pump runs out of fluid, Coyote restarts it after waiting the interval you choose on the timer.
- If the incoming power goes bad, Coyote restarts the pump when proper power is restored.
- If the motor draws excessive current, Coyote will try three times to restart it. If the overcurrent condition is not cured, Coyote locks out the pump, and the overcurrent light blinks.

What if there is not enough fluid to pump when the pump restarts?

Coyote will let it run just one second, shut it off, wait the same amount of time and try again, wait and try again, wait and try again, until there is enough to pump.

What if I want to turn on the pump before the timer has run its cycle?

Just push the RESET button or turn the power off and then on again at the circuit breaker and the pump will restart.

How does it work?

Coyote monitors the incoming power and the electrical characteristics of the motor. When the pump quits pumping fluid, those characteristics change, and Coyote shuts it off.

Will it operate on power supplied by generators?

Yes.

On what kinds of pumps does it work?

Submersibles, centrifugals, jets, and sumps.

In what kinds of applications?

Water wells, oil wells, booster and lift stations, chemicals transfer, mine dewatering, sewage treatment, solution mining, food processing, construction dewatering, and cleanup of aquifers contaminated by hydrocarbons are the most common.

What about protection from the environment?

The insides of Coyote are sealed in plastic to keep out moisture, insects, and blowing sand and dust.

How about power outages?

When the power is out, the pump won't run. When it comes back on, Coyote automatically resets itself. There is no need to touch anything.

What about lightning?

Lightning protection for the electronics of Coyote is built-in.

How is it installed?

Coyote is installed between the circuit breaker and magnetic contactor in minutes with a standard screwdriver.

What if I need something a little different from the standard unit?

Please call us. It is likely we have already made for someone else what you have in mind.

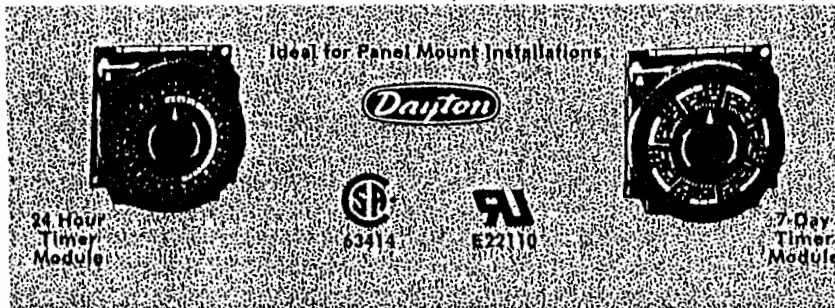
LIMITED WARRANTY

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24 HR AND 7-DAY ELECTROMECHANICAL MODULES AND TRIPPERS

**ELECTRIC
CONTROL AND
DISTRIBUTION**

24 HOUR AND 7-DAY ELECTROMECHANICAL MODULES



- Settings per day: 48 On-Off (24 hour timers)
- Settings per week: 42 On-Off—6 settings per day (7 day timers)
- Quartz drive motor on Nos. 2A519 and 2A520; synchronous on Nos. 2A517 and 2A518; draws 0.1 watt
- Nos. 2A519 and 2A520 have quartz battery reserve to keep timer running for approx. 90 hours during power failures
- Can be mounted in 4 x 4" electrical box
- 2 1/2" (64 mm) diameter opening for dial if mounted through panel
- Ambient operating temperature: -10° to 55°C

ELECTRICAL SPECIFICATIONS								TIMER SPECIFICATIONS				
No. of Poles	Stock No.	Contact Load Rating @ 120/240VAC						Timer Input Volts @ 60 Hz	Time Setting		Daily On-Off Operations Per Pole	No. of Trippers Included
		Form	I*	Amps R*	T*	Pilot Duty	HP		Minimum	Maximum		
24 HOUR MODELS												
1	2A517 2A519	SPST	8/6	20/15	8.3/4.1	470/662VA	1/2 1/4	120	1/4 Hr	23 3/4 Hr	48	06
7-DAY MODELS												
1	2A518 2A520	SPST	8/6	20/15	8.3/4.1	470/662VA	1/2 1/4	120	2	22	6	84
TIMER ORDERING DATA												
No. of Poles	Form	Timer Input Voltage @ 60 Hz	Battery Reserve	Dimensions			Stock No.	List	Each	Shpg. Wt.		
				H	W	D						
24 HOUR MODELS												
1	SPST	120	No Yes	2 3/8"	2 3/8"	1 1/4"	2A517 2A519	\$49.00 87.00	\$31.85 56.55	0.4 0.3		
7-DAY MODELS												
1	SPST	120	No Yes	2 3/8"	2 3/8"	1 1/4"	2A518 2A520	49.00 87.00	31.85 56.55	0.3 0.3		

(*) I = Inductive, R = Resistive, T = Tungsten

(*) I = Inductive, R = Resistive, T = Tungsten



EXTRA TRIPPERS FOR TIMERS

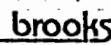
For Time Switch	Quantity	Stock No.	List	Each	Shpg. Wt.
1A219, 1A220, 1A573, 1A850, 2A208, 2A209, 4A214, 2E021 thru 2E024, 2E053, 2E214, 2E258, 2E259, 2E351, 2E352 thru 2E354, 4E023 thru 4E026, 6X757, 6X759, 6X760, 6X768 thru 6X769	1 Pair On-Off	2E054	\$1.25	\$0.86	0.1
2E025	1 Adjustable	2E055†	7.00	5.00	0.1
2A206, 2A512, 2E130, 2E131, 2E355 thru 2E357, 2E389, 2E408, 6X761, 6X762	12 Trippers	2E132	1.50	1.35	0.1

(†) On-Off cam type tripper adjustment is 10 to 60 minutes.

electri-flex

MANY BRANDS OF ELECTRICAL PRODUCTS AVAILABLE

LUTRON



**QUARTERLY WATER LEVEL MONITORING
DATA SHEET
DIXON TICONDEROGA, DEER LAKE, PENNSYLVANIA**

DATE: _____

<u>WELL</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>
2s	_____	_____	_____	_____	_____	_____	_____	_____
3s	_____	_____	_____	_____	_____	_____	_____	_____
3d	_____	_____	_____	_____	_____	_____	_____	_____
4s	_____	_____	_____	_____	_____	_____	_____	_____
8s	_____	_____	_____	_____	_____	_____	_____	_____
8i	_____	_____	_____	_____	_____	_____	_____	_____
8d	_____	_____	_____	_____	_____	_____	_____	_____
9s	_____	_____	_____	_____	_____	_____	_____	_____
10s	_____	_____	_____	_____	_____	_____	_____	_____

<u>WELL</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>PUMPING RATE (gpm)</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>
Prod.Well	_____	_____	_____	_____	_____	_____	_____	_____	_____
5s	_____	_____	_____	_____	_____	_____	_____	_____	_____

REMARKS: _____

SIGNATURE: _____

**WATER LEVEL MONITORING
DATA SHEET
DIXON TICONDEROGA, DEER LAKE, PENNSYLVANIA**

DATE: _____

<u>WELL</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>
2s	_____	_____	_____	_____	_____	_____	_____	_____
3s	_____	_____	_____	_____	_____	_____	_____	_____
3d	_____	_____	_____	_____	_____	_____	_____	_____
8s	_____	_____	_____	_____	_____	_____	_____	_____
8i	_____	_____	_____	_____	_____	_____	_____	_____
8d	_____	_____	_____	_____	_____	_____	_____	_____

<u>WELL</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>PUMPING RATE (gpm)</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>	<u>WATER LEVEL (ft.BTC)</u>	<u>TIME</u>
Prod.Well	_____	_____	_____	_____	_____	_____	_____	_____	_____
5s	_____	_____	_____	_____	_____	_____	_____	_____	_____

REMARKS: _____

SIGNATURE: _____

**DAILY CHECK LIST
OPERATION AND MAINTENANCE
PRODUCTION WELL**

Inspector _____

Date: _____

Time: _____

ITEMS CHECKED AND OK'D:

Chlorine System: _____

Meter Readings: Water from well: _____ gal.

Water to plant: _____ gal.

Water from effluent pump: _____ gal.

Water Level Recorder: _____

Remarks and Observations: _____

**WEEKLY, MONTHLY AND YEARLY CHECKLIST
OPERATION AND MAINTENANCE
PRODUCTION WELL**

Inspector _____

Date: _____

Time: _____

ITEMS CHECKED AND OK'D:

Time Clock: _____

Change Recorder Charts: _____

MONTHLY ITEMS CHECKED AND OK'D:

Check Stripper Packing for Fouling: _____

Check Discharge Outfall: _____

YEARLY ITEMS CHECKED AND OK'D:

Calibrate Transducers: _____

Remarks and Observations: _____

Monitoring Well 5 Operation & Maintenance Check List

Inspector _____ (Name)

Date _____

Time _____

Pump Status _____ (ON/OFF)

Water Depth _____

Flow Initial _____ GPM (Gal start _____ gal stop _____)

Flow Adjusted _____ GPM Time Interval _____

Water Sample Collected (Y/N) _____

▲p Carbon: _____ PSI

▲p Filters: _____

Outside air temp: _____

Inside air temp: _____

Observations: (i.e. leaks, excessive noise, bldg. damage)

Maintenance Required: (i.e. adjust flow, change filters)

2.3 Production Well

2.3.1 Design Criteria

In order not to jeopardize the existing water supply permit, water from Well 5 and the production well will not be mixed. Each system will stand alone and discharge into the sewer lines to the discharge wet well located at the south end of the former polishing lagoon.

Treatment standards for compounds found in Dixon's wells as required by the FDRTC are:

<u>Compounds</u>	<u>Standard (ppb)</u>
1,1-DCA	810
1,1-DCE	7
1,2-DCE	70
PCE	5
1,1,1-TCA	200
TCE	5
Vinyl Chloride*	2

*Compound not listed in FDRTC

2.3.2 Existing Facilities

The mechanical facilities (air stripping tower for treatment of well water) to accomplish the groundwater plume containment and groundwater clean up presently exist on site to remove volatile organics to the above standards.

1. General Description of the Existing Production Well

Treatment Scheme

Well water is pumped directly from the well at a rate of 100 to 120 gpm to the top of the stripping tower. An air blower pumps air into the bottom of the air stripper and air flows upwards and countercurrent to the water flow. Treated water

Soils excavated from Areas 11 and 12 (approximately 500 tons) are currently undergoing on-site bioremediation and will be used as on-site fill upon completion of treatment.

7.0 PROJECT SCHEDULE

The following is the anticipated implementation schedule for the groundwater remediation system.

TASK	DURATION (WEEKS)	WEEKS AFTER EPA APPROVAL OF CMI PLAN
Submit NPDES permit revision	1.0	1.0
Order and receive equipment	6.0	7.0
Installation and Construction	2.0	11.0
System Testing	2.0	13.0
Sytem in Operation	---	13.0
Submit Construction Completion Report to EPA	---	17.0

This schedule assumes that the revised NPDES permit is received by the 10th or 11th week and that weather conditions will permit construction.

8.0 MONITORING PLAN

8.1 Monitoring Network and Sampling and Analysis Schedule

In order to monitor and evaluate the effectiveness of the groundwater remediation system, it will be necessary to track the concentrations of volatiles in the groundwater on a periodic basis. This will be accomplished through the sampling of selected monitoring wells and the charting over time of the concentrations of volatiles in these wells. This plan addresses only water quality monitoring. Water level elevation monitoring to determine hydraulic control of the plume will occur on a more frequent basis and is addressed in section 3.0, Operation and Maintenance.

It is proposed that all of the on-site wells, plus one off-site well, in which chlorinated volatiles have been detected be sampled on an annual basis. The water quality in the recovery wells and nearby monitoring wells will be evaluated on a quarterly basis. The proposed monitoring network for the CMI phase is outlined in Table 4.

TABLE 4
GROUNDWATER QUALITY MONITORING
NETWORK FOR CMI PHASE

SAMPLING FREQUENCY	WELLS
Quarterly	2s, 3s, 8s, 5s, Production Well
Annually	1s, 2s, 3s, 3d, 4s, 5s, 8s, 10s, Production Well, Driving Range Well

method 8010. These will be the only analytical parameters. All other parameters currently being analyzed, such as total organic carbon, specific contaminations, dissolved solids and total organic halogens are considered unnecessary and will be discontinued pending notification to PaDER.

All sampling and decontamination procedures and protocols will conform to those outlined in the original RFI work plan. Quality assurance samples for annual monitoring will consist of a trip blank and a blind duplicate. All quality assurance samples will be analyzed for the same parameters as groundwater samples.

It is proposed that the annual monitoring network be sampled as the third sampling event after the remediation system goes on-line. This will allow a full nine months of aggressive groundwater remediation before a comprehensive review of its effectiveness. After review of the results of the annual groundwater sampling, a determination will be made as to whether any modifications to the monitoring plan are needed.

8.2 System Shutdown

The groundwater remediation system will be shut down when concentrations of volatile organics from four consecutive quarterly sampling events are at or below the cleanup standards set in the FDRTC. These standards are listed in Table 5. Prior to system shutdown, Dixon will submit to EPA, for review and approval, a formal request for this procedure.

TABLE 5
GROUNDWATER CLEAN-UP STANDARDS

COMPOUND	STANDARD (ug/l)
1,1 dichloroethane	810
1,1 dichloroethylene	7
1,2 dichloroethylene	70
Tetrachloroethylene	5
1,1,1 Trichloroethane	200
Trichloroethylene	5
Vinyl Chloride*	2

*Compound not listed in FDRTC

Based on the results of the RFI (sampling date 5/10/90) the wells which contain one or more of the above compounds above cleanup standards are wells 3s, 8s and the production well.

Upon cessation of the groundwater remediation system, groundwater monitoring will continue according to the plan outlined in 10.1 for eight more quarters in order to confirm clean-up. At this time, a

② ~~corrective measures completion (CMC)~~ report will be submitted to EPA.

The CMC report will contain, at a minimum, justification for cessation of the corrective measure and groundwater monitoring.

*But
request will
contain that.*

9.0 COST ESTIMATE

9.1 Capital Costs

Production Well:

Equipment, Materials and Installation	\$10,950
Excavation and Subsurface Piping (installed)	14,800
Engineering and Consulting	<u>1,500</u>
Subtotal	\$27,250

Well 5:

Equipment, Materials and Installation	\$14,000
Engineering and Consulting	<u>1,500</u>
Subtotal	\$15,500

TOTAL \$42,750

9.2 Operation and Maintenance (O&M)

The following O&M costs are for one year of operation, based on present worth.

Production Well:

Power	\$ 4,900
Labor and Operations	7,300
Laboratory Analysis	3,600
Engineering and Consulting	<u>1,000</u>
Subtotal	\$16,800

Well 5:

Power	\$ 1,000
Laboratory Analysis	3,600
Supplies	900
Engineering and Consulting	<u>1,500</u>
Subtotal	\$ 7,000

Groundwater Monitoring:

Sampling & analysis of monitoring wells	\$ 9,000
Engineering and Consulting	<u>2,500</u>
Subtotal	\$11,500

TOTAL O&M \$35,300